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ABSTRACT

This report focuses on the Study of Allied Health Education (SAHE) project that was established for the purpose of designing an action plan on a national scale for allied health and nursing education. The specific task of the project was the determination of the role that community and junior colleges might fulfill in increasing ambulatory care in the United States. The study involved regional workshops, national conferences, special interviews, questionnaires, and a literature search. This report presents the major findings and recommendations resulting from those activities. The chapters of the book are: 1. SAHE Objectives: Definition of Primary and Ambulatory Care; Objectives--Student Related Issues; Curriculum Development and Quality of Instruction; Articulation, Teacher Preparation, and Continuing Education; Administration and Administrative Costs; Manpower Information; Emerging Health Care Programs; 2. SAHE Procedures: National Advisory Committee; National Professional Associations Conferences; Regional Workshops; Questionnaire: Clinical Instruction; Continuing Education and Consumer Health Education; 3. SAHE Findings: Priorities for SAHE Objectives; Literature Search; Conference and Workshops; SAHE Questionnaire; Status of Clinical Instruction; and Continuing Education and Consumer Health Education; 4. SAHE Recommendations; Targets of Opportunity; and 5. SAHE Projections. Nine appendixes, three figures, and 16 tables are included. (DB)

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COMMUNITY COLLEGES AND PRIMARY HEALTH CARE:

Study of Allied Health Education (SAHE) Report

by Mary E. Hawthorne
and
J. Warren Perry

American Association of Community and Junior Colleges

JC 740 488

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foreword

Providing health care services and health maintenance education for all Americans is a top national priority. Both major political parties, federal government agencies, and all knowledgeable individuals concur in this assessment. Differences of opinion exist, however, not in the broad objective of good health for all, but on the specifics of how to organize and finance nationwide programs. Regardless of these differences, it seems reasonable to project escalating demands for health service personnel, special health care facilities, and health-oriented instructional programs for all citizens in the United States.

The American Association of Community and Junior Colleges (AACJC) is a membership network of approximately 1000 institutions currently serving over 3,000,000 students in approximately 3000 allied health and nursing education programs. During the past decade we have been deeply involved in special projects designed for the improvement of occupational education in general and of allied health and nursing education in particular. These projects have included joint efforts with other national associations and agencies; they have been funded by grants from W.K. Kellogg Foundation, The Commonwealth Fund, and the U.S. Department of Health, Education, and Welfare. This publication is a report of the recent Study of Allied Health Education (SAHE) which again brought together national professional associations and foundation resources to focus on a major problem of nationwide concern. The study placed particular emphasis on the role and potential of the community and junior colleges in meeting the country's personnel needs in primary and ambulatory care. The SAHE project and the publication of this report were made possible through grants from The Robert Wood Johnson Foundation.

The Association was most fortunate in obtaining J. Warren Perry, dean, School of Health Related Professions at the State University of New York at Buffalo, to serve as project director. Dr. Perry's reputation as one of the national leaders in allied health is well recognized. He contributed unstintingly to SAHE from his broad background of experience and intense interest in all aspects of allied health education and practice. During his nine months with the project, while on leave from SUNY, Buffalo, the AACJC learned to appreciate more deeply his many talents and to understand why he is held in such esteem. Dr. Perry selected as his associate Mary E. Hawthorne, formerly educational advisor to the commander, School of Health Care Sciences, USAF, Wichita Falls, Texas. Dr. Hawthorne brought to this work her tireless energy, her flair for energizing action, and a wide experience combining community college, university, and military allied health and nursing education programs and gave SAHE a comprehensive background essential to the national dimension and potential of this study.

Here at the Association we consider the SAHE to have been one of our most significant recent activities. It has provided us with a beginning pathway toward the achievement of the Association's objectives related to our community-based, performance-oriented philosophy. As we see it, the next few years need to be marked by a concerted effort to chart what is possible, extend what is available, and develop a supportive framework for it all. SAHE has provided the model for meeting these needs.

The SAHE staff succeeded in selecting an authoritative advisory committee in allied health and nursing education. These representatives of the health professions and services and educational administration meticulously constructed the basic statements of issues and opportunities which face community and junior colleges and other institutions and agencies with which they must cooperate in the work of achieving national health goals.

This SAHE report places considerable emphasis on the need for maintaining liaison and cooperative work patterns among the colleges, hospitals, university medical centers, clinics, and government agencies. The very involvement of the experts representing the audiences of this report promises that its message will be given the credence and respectful attention that will bring constructive action. If this study remains on shelves unread and unattended, then it will be of little value except as a record of some phenomenal first meetings-of-minds of hitherto rather independent workers. But, since it is a high point in the chronicle of community and junior college allied health and nursing education, we hope it will serve the higher purposes of stimulating discussion and thought leading to positive action for America's highest priority goal, as the authors put it, a "nation of healthy people in a healthful environment."

William G. Shannon
Senior Vice President for Planning and Development
American Association of Community
and Junior Colleges

November 1974

preface

Planning without action is futile; action without planning is fatal. In the broad field of allied health and nursing education there has been a great deal of planning without action and, it appears, an almost equal amount of action without planning. The Study of Allied Health Education (SAHE) funded by The Robert Wood Johnson Foundation is a project established for the purpose of designing an action plan on a national scale for allied health and nursing education, with the specific task of determining the role that community and junior colleges might fulfill in increasing access to primary and ambulatory care in the United States. The study involved regional workshops, national conferences, special interviews, questionnaires, and a literature search; and this report presents the major findings and recommendations stemming from these activities.

The SAHE project has been an enlightening and rewarding experience for us mainly because of the splendid cooperation we received from all who participated. To each one we extend our profound and abiding appreciation: to The Robert Wood Johnson Foundation for the grant which made the SAHE project and this publication possible; to the members of the National Advisory Committee, who responded enthusiastically to our call and worked so energetically with us throughout the study; to the representatives of the national health professional associations and government agencies who cooperated and collaborated with us to help shape the direction of the project; to all participants of the regional workshops who worked so conscientiously to provide the framework for structuring the Targets of Opportunity presented in this publication; and to the personnel in all the community and junior colleges who responded to the SAHE questionnaire.

We would also like to express our gratitude to the entire staff of the American Association of Community and Junior Colleges for their continuing understanding and support, and to Kenneth G. Skaggs, in particular, whose help was invaluable in the selection of the locations and participants for the regional workshops and for all the logistical arrangements associated with these meetings. We especially thank Josephine T. Lees for preparing the annotated bibliography and for editing, assembling, and proofing the publication.

We sincerely hope that this plan for a national program in allied health and nursing education will be activated. We also hope that all future developments in community college allied health and nursing education will arise from collaborative programs planned for increasing access to community comprehensive health care and services.

Mary E. Hawthorne, Ph.D.
SAHE Assistant Director

J. Warren Perry, Ph.D.
SAHE Director

November 1974

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COMMUNITY COLLEGES AND PRIMARY HEALTH CARE:
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- objectives
- procedures
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CHAPTER 1

SAHE objectives

During the past decade both the federal government and private foundations have invested enormous amounts of money in projects for health manpower development and the improvement of health care delivery to the people of the United States. But few of these efforts have focused attention on general medical care, and primary health care is still not available to millions of Americans. One of the major thrusts of past expenditures has been toward increasing physician manpower. Concomitantly, the support of medical research has led to more and more specialization of medical and health practitioners. Unfortunately, less and less attention has been given to the far more critical societal need to provide the American population ready access to primary and ambulatory care and services.

Early in September 1973 the Study of Allied Health Education (SAHE) was initiated at the American Association of Community and Junior Colleges (AACJC) with the assigned mission of determining ways and means of increasing access to primary and ambulatory care for all Americans. At the outset, the SAHE staff made four assumptions:

1. Planning at all levels in the academic community must assure active involvement and coordination with representatives of medicine, dentistry, nursing, allied health specialities, professional health associations, and all levels of governmental agencies.
2. Increased access to primary and ambulatory care will be achieved only when competent personnel are working effectively together in the right place and at the right time to meet the needs as they arise; and, therefore, one approach to this goal would be provided through the development of the existing potential in community and junior college programs in allied health and nursing education. (To simplify the text, the term community college will refer to all community-based, performance-oriented educational institutions, including junior colleges and technical institutes.)
3. SAHE should begin with the identification of the existing potential in the United States' allied health and nursing educational system.
4. The national effort toward increased access to primary and ambulatory care should be directed toward providing college deci-

TABLE I: The Delivery of Primary and Ambulatory Care

WHAT ARE THE COMPONENTS?	WHERE SHOULD IT BE DELIVERED?	WHO SHOULD DELIVER?
Primary Care: **Consumer health education** and realistic support for those who are **well** to assist in the **maintenance** of good health and to prevent illnesses and injuries	Business and industrial settings Dentist's offices Group medical and dental practice settings Health care facilities HMOs Physician's offices Schools (all levels) State public health offices Other community settings	Allied health personnel Counselors Dental auxiliary personnel Dentists Educators Health service agency personnel Nursing personnel Physicians
First contact care of serious diseases and trauma, including appropriate referral	Accident scenes Business and industrial settings Dentist's offices Disaster areas Group medical and dental practice settings Home settings HMOs Outpatient clinics of hospitals Outreach clinics Physician's offices Recreation areas Schools (all levels)	Allied health personnel Dental auxiliary personnel Dentists Emergency medical service technicians Home health aides Mental health personnel Nursing personnel Physician extenders Physicians
Ambulatory Care: management of ***common illnesses*** and ***injuries*** for the non-hospitalized patient, including diagnostic and therapeutic procedures	Business and industrial settings Dentist's offices Group medical and dental practice settings, including diagnostic labs Home settings HMOs Nursing homes and extended care facilities Outpatient clinics Outreach clinics Physician's offices Schools (all levels)	Allied health personnel Dental auxiliary personnel Dentists Nursing personnel Physician extenders Physicians

sion makers with accurate information and the technical assistance necessary for the full development of the existing potential in their respective communities.

With these assumptions in mind, the SAHE staff prepared the project's objectives and planned procedures to insure their achievement.

DEFINITION OF PRIMARY AND AMBULATORY CARE

For the purpose of this report "primary care" is defined in a broad sense to cover (1) consumer health education and realistic support for those who are *well* to change personal health behavior habits so that, on an individual basis, good health is maintained and illnesses and injuries are prevented; and (2) first contact care of serious disease and trauma, with appropriate referral. "Ambulatory care," on the other hand, refers to the management of common illnesses and injuries for the non-hospitalized patient, including the related diagnostic and therapeutic procedures as shown in Table I.

OBJECTIVES

Originally, the American Association of Community and Junior Colleges identified nine problem areas and needs in allied health and nursing education. These needs are outlined below.

1. Better information and more effective projection of future trends in manpower requirements
2. Improved clinical instruction
3. Better articulation among secondary schools, two-year colleges, and other postsecondary institutions
4. Better transfer agreements between two- and four-year institutions
5. More individualized curricula and better methods of instruction
6. Improved procedures in recruiting, counseling, and placement of students in allied health and nursing professional and technical work
7. More effective and continuous communication with health professionals on local, regional, and national levels
8. Improved ways of preparing teachers of allied health and nursing personnel

9. More effective procedures for accreditation, certification, and licensure of students and workers in allied health and nursing education programs

The above needs in allied health education were translated into 17 objectives in six topical groups, as follows:

Group I: Student Related Issues

1. To establish realistic strategies for accurate information-giving, recruitment, financial aid, developmental studies, advising, counseling, retention, placement, and follow-up of students in allied health and nursing education
2. To assess the current status of minorities in allied health and nursing education in order to bring about appropriate representation among students, staff, and the overall work force.
3. To assess the need for traineeships and scholarships for students in allied health and nursing programs and to make specific recommendations to meet that need

Group II: Curriculum Development and Quality of Instruction

4. To assist colleges in understanding the administrative implications of providing the clinical portions of allied health and nursing programs and to develop more efficient and effective systems for mobilizing available resources
5. To establish a dynamically functional clearinghouse for the identification of resources for planning, implementing, upgrading, and increasing cost/effectiveness of allied health and nursing education curricula
6. To develop a plan for providing basic information for development of programs that respond to changing needs for health services versus fitting products into traditional models of care

Group III: Articulation, Teacher Preparation, and Continuing Education

7. To identify ways and means for providing better articulation between and among all levels of allied health and nursing education programs
8. To prepare a plan aimed at achieving the most effective and appropriate teacher preparation to assure optimal utilization of allied health and nursing instructional personnel

9. To develop ways of mobilizing the potential of community colleges in continuing education for allied health and nursing educators and practitioners

Group IV: Administration and Administrative Costs

10. To prepare a plan for more effective relationships among AACJC, the professional health associations, and governmental agencies
11. To identify problems created by procedures followed in the accreditation, certification, and licensure processes
12. To review, "translate," and disseminate information on comprehensive cost analysis systems and patterns of financing appropriate to allied health and nursing education.

Group V: Manpower Information

13. Develop a plan for (a) identifying major manpower intelligence studies, (b) establishing liaison with these studies, (c) providing input to these studies which would enhance their utility to community college allied health and nursing education curriculum developers, and (d) providing a manpower intelligence data analysis consultation service to community colleges
14. Develop a plan for establishing a series of regionally-based information systems for collecting, processing, and distributing data required for planning and programming of community college curricula in allied health and nursing education
15. Develop a plan for generating and regularly updating estimates of intermediate and long-range health industry trends, especially interpreted for their impact upon the significance to allied health and nursing education programming

Group VI: Emerging Health Care Programs

16. Develop a plan for identifying the (a) community colleges with the potential for emerging health care education programs and (b) essential criteria for their involvement
17. Develop a plan for guiding community colleges into effective roles in emerging health care planning programs

CHAPTER 2

SAHE procedures

The SAHE procedures were established to test the hypothesis that the development of the potential in community colleges in concert with federal and local efforts in allied health and nursing education could lead to increased access to primary and ambulatory care. To make this determination, it was first necessary to identify the extent of the existing potential in community colleges and other programs. Consequently, input was required from all facets of the allied health and nursing communities. Accordingly, the SAHE staff scheduled a series of conferences, regional workshops, and special interviews; initiated a literature search; and planned a questionnaire to survey the nature and extent of allied health and nursing education programs in community colleges.

NATIONAL ADVISORY COMMITTEE

The SAHE National Advisory Committee was selected to include leaders representative of a cross section of personnel associated with all aspects of allied health and nursing education and practice. It was comprised of educators and administrators in community colleges, universities, and health care facilities, as well as personnel from state and city departments of education and health. The names, titles, and addresses of these leaders are noted in Appendix A. Two meetings of the Committee were scheduled. At the first one (September 24-25, 1973), the participants revised the tentative SAHE objectives which had previously been prepared by the SAHE staff, identified problem areas associated with each objective, and developed strategies for their resolution. Committee members also assigned priorities to the refined objectives. The guidelines for participants, tentative SAHE objectives, and worksheet for assigning priorities are presented in Appendix B.

At the second meeting (April 4-5, 1974), the Committee (1) reviewed a preliminary draft of a manuscript for the SAHE final report, (2) revised the format of the questionnaire for mailing to community colleges, and (3) developed a plan for the implementation of a functional resource center for allied health and nursing education information.

Throughout the course of the project, the National Advisory Committee members worked closely with the SAHE staff. Among other contributions, they recommended personnel for the invitational regional conferences. Fifteen committee members participated in these meetings; and, of this number, six served as chairmen. In addition, many members of the Committee sent relevant project reports and other documents to the SAHE staff for their perusal.

NATIONAL PROFESSIONAL ASSOCIATIONS CONFERENCES

The SAHE staff established direct communication with national professional associations, organizations, and agencies. Representatives of these groups were invited to attend either of two meetings—December 12, 1973, in Chicago or February 27, 1974, in Washington, D.C.—to share mutual concerns and challenges for the future of allied health and nursing education. A total of 54 individuals from 32 associations and federal agencies participated in the conferences.

The main purpose of these meetings was to orient participants to the SAHE objectives and to obtain recommendations for the project. Each participant was given the names of the SAHE National Advisory Committee and a copy of the project objectives. The SAHE staff presented an overview of the project, described the origin and development of its objectives, and outlined the procedures for the regional workshops. Discussions at these two professional associations conferences centered on the status of health manpower studies by various governmental agencies, the anticipated roles of allied health and nursing workers in primary and ambulatory care settings, and the programs planned for continuing education of allied health and nursing personnel. In all cases, participants were asked to consider primarily the possible role(s) of community colleges in program planning.

As a result of these conferences, communication channels were opened among the SAHE staff and national offices relating to allied health and nursing education. The names and addresses of participants to the conferences appear in Appendix C; the organizations they represented are listed below, with the asterisk indicating representation at both conferences.

Accrediting Bureau of Medical Laboratory Schools
American Association for Comprehensive Health Planning
American Association of Community and Junior Colleges*
American Association of State Colleges and Universities

American Dental Assistants Association
American Dental Association
American Dental Hygienists Association*
American Dietetic Association
American Hospital Association*
American Medical Association*
American Medical Record Association
American Medical Technologists*
American Nurses' Association
American Occupational Therapy Association
American Osteopathic Association
American Society of Allied Health Professions
American Society of Radiologic Technologists
American Society for Medical Technology*
American Vocational Association
Association of American Medical Colleges
Association of Operating Room Technicians
Institute of Medicine—National Academy of Sciences
International Society for Clinical Laboratory Technology
National Association of Trade and Technical Schools
National Commission on Accrediting
National Federation of Licensed Practical Nurses
National Health Council
National League for Nursing*
U.S. Department of Health, Education, and Welfare
  Bureau of Health Resources Administration
  Regional Medical Programs Service
  Office of Education
Veterans Administration

REGIONAL WORKSHOPS

The SAHE staff conducted invitational workshops in the following regions: Mid-Atlantic, New England, North Central, New York City, Southern, Western, and Mountain States. The 155 participants of these workshops (90 male and 65 female), all prominent in the field of allied health and nursing education, represented the following:

Minorities	13
Institutions	
Community and Junior Colleges	79
Universities	47
State Agencies	20
Hospitals	10
Positions	
Deans/Directors	100
Heads of Departments	21
Presidents/Vice Presidents	14

Consortia	35
Specialties	
Allied Health	97
Nursing	23
Physician's Assistant	11
Physicians	7
Dental Auxiliary	6
Teacher Preparation	4

Table III in Appendix D offers a detailed breakdown of participant representation at regional workshops; the dates, location, and chairmen of the workshops are also noted in Appendix D. The names and addresses of regional participants are in Appendix E.

The agenda and format for all workshops were similar throughout. Plenary sessions provided an opportunity for all conferees to exchange ideas. The small work session discussions focused on the six Objective Groups as presented in Chapter 1: Student Related Issues; Curriculum Development and Quality of Instruction; Articulation, Teacher Preparation, and Continuing Education; Administration and Administrative Costs; Manpower Information; and Emerging Health Care Programs. Participants were asked to (1) evaluate the assigned objectives to determine how well they related to their regional needs and problems in allied health and nursing education; (2) identify problems that might present barriers to meeting their regional needs in allied health and nursing education; (3) develop strategy recommendations and outline a plan or plans for implementation; and (4) prepare a list of regional resources that might be employed in implementing the proposed strategy plan. At Western and Mountain States workshops, one general session was devoted to descriptions of present innovative allied health and nursing education programs with emphasis on primary and ambulatory health care. Representative materials distributed to conferees at each workshop appear in Appendix F: Guidelines for Participants.

The regional workshops gave the selected interdisciplinary leaders in health care education and practice an opportunity to discuss and plan ways to solve their regional problems. At the end of each workshop, all working groups submitted a written report of their findings and recommendations. Later, the SAHE staff drafted a summary of work session reports for each region, and these documents were distributed to those in attendance at the particular meeting. Through the analysis of these workshop reports it was possible to shape the Targets of Opportunity (see Chapter 4) from regionally developed strategies.

QUESTIONNAIRE: CLINICAL INSTRUCTION, CONTINUING EDUCATION, AND CONSUMER HEALTH EDUCATION

It was a premise of the SAHE project that increased access to community primary and ambulatory care could be achieved only when competent personnel are working effectively together in the right place and at the right time to meet the needs as they arise; and, therefore, one approach to this goal would be provided through the development of the potential in community college programs in allied health and nursing education. In this light, it became clear that there was a need for surveying the community colleges to determine the existing potential.

The National Advisory Committee worked with the SAHE staff in the preparation of the questionnaire based on the following assumptions:

1. That the SAHE Questionnaire should be considered experimental in its nature and serve as a prototype for development of a valid and reliable survey instrument to measure progress achieved in future projects.

2. That, since it would be an experimental instrument, the SAHE Questionnaire should be an open-ended, write-in type so that problems associated with the construction of a more structured computerized survey form could be readily identified.

3. Since the survey instrument would have to reach the colleges before the completion of the academic year (1973-1974), the 1972-1973 data would be requested, and the results would provide a data base for later comparison studies.

4. That determination of the potential existing in community colleges for increasing access to community health care and services could be made through an assessment of clinical instructional prac-

tices, continuing education, and consumer health education in the colleges.

The survey instrument was constructed in three parts. Clinical Instruction (Part I) was designed primarily to obtain data on the various types of clinical settings included in the preparatory programs; Continuing Education (Part II) requested data on the nature and extent of current short-term continuing education courses for allied health and nursing personnel; Consumer Health Education (Part III) requested a listing of courses and/or special programs and services provided by community colleges for the purpose of changing attitudes and personal health habits in areas such as alcoholism, antismoking, cancer, drug abuse, and weight control. The SAHE Questionnaire is reproduced in Appendix H.

In April 1974 the questionnaire was mailed to 1175 community and junior colleges, technical institutes, and two-year branch campuses of four-year colleges and universities identified by the American Association of Community and Junior Colleges in their *1973 Community and Junior College Directory*. This *Directory* includes colleges located in each of the fifty United States, the District of Columbia, American Samoa, the Canal Zone, Puerto Rico, and Canada.

CHAPTER 3

Sahe findings

A priority sequence was established for the SAHE Objective Groups from votes taken at the various conferences and workshops. To determine the role that community colleges should fulfill in their efforts to meet allied health and nursing personnel requirements, special attention was given to some specific areas of interest, such as educational programs for assistants to primary care physicians, allied health manpower information, credentialing processes, and clinical education. This chapter presents the conclusions drawn from the objective group priority voting, the literature search, the SAHE conferences and workshops, and the results of the SAHE Questionnaire data survey.

PRIORITIES FOR SAHE OBJECTIVES

At all the SAHE conferences, with the exception of the Mid-Atlantic, participants were asked to assign a priority to each of the six Objective Groups, with "1" as an indication of highest preference. Detailed analyses of the resulting data are included in Appendix G. The data obtained from the regional workshops and from the National Advisory Committee led to similar conclusions. Table II shows the descending order of priority sequence for the six Objective Groups from the combined data. It was the consensus that Group V (Manpower Information) should receive the highest priority in any future national effort. It should be noted, however, that community colleges' needs for information extend far beyond the manpower aspect, and Target 2—Establishment of a Center for Allied Health Information—was developed from the lists of informational requirements in SAHE regional workshop reports (see Chapter 4).

Since participants in the SAHE project were broadly representative of all facets of allied health and nursing education and practice, the diversity of opinion on other priority groups was expected. The diversity in priorities might be an outgrowth of past trends towards specialization and isolation. In either case, it indicates a need for the encouragement of new trends toward increased cooperative and collaborative efforts in the future. To achieve this goal, emphasis must be placed upon the importance of maintaining the communication lines now established among the personnel from the

TABLE II: Sequence of Objective Groups as Determined by Combined Data from SAHE National Advisory Committee and Regional Workships

OBJECTIVE GROUP (For statements of objectives included in each group, refer to the Roman numeral to the left and then to the corresponding objective group numeral in Chapter 1.)		PRIORITY
V.	Manpower Information	1
II.	Curriculum Development and Quality of Instruction	2
VI.	Emerging Health Care Programs	3
III.	Articulation, Teacher Preparation, and Continuing Education	4
IV.	Administration and Administrative Costs	5
I.	Student Relates Issues	6

national health associations/agencies, the academic community, and the clinical facilities as well. Furthermore, future academic planning at all levels must assure active involvement and coordination with representatives of medicine, dentistry, nursing, allied health workers, and their employers. Finally, there is a need for a major concerted effort toward the unification of present divergent priorities in the interest of increasing access to primary and ambulatory care.

LITERATURE SEARCH

In establishing priorities for the literature search, the highest priority was given to documents relating to the SAHE Objective Groups and containing information that might be valuable to community colleges. While publications dealing with descriptions of specific community college curricula in various specialities were not sought, an effort was made to locate articles describing programs emphasizing primary and ambulatory care. More than 250 documents, most of which were published between 1970 and 1974, were reviewed; the majority were annotated, classified, and cross-referenced for the SAHE bibliography (see Appendix I). This listing contains descriptions of thought-provoking plans and programs, published and unpublished project reports, directories, and many purely conceptual treatises as well. Most of the articles refer to several issues; this fact, therefore, led to the preparation of the classification section where 223 articles, studies, and projects are cross-referenced. With the exception of descriptions of special programs for primary and ambulatory care personnel, documents in the bibliography that refer to specific allied health and nursing education programs are not cross-referenced by program title. This classification section may be considered a prototype for developing a functional information storage and retrieval system. Continuing use and refinement is required for maximal efficiency in the identification of such information for community college program planning in allied health and nursing education.

Because the SAHE Objective Group V (Manpower Information) emerged with the highest objective priority (see Table II) all reports of manpower studies which the SAHE staff received from conference and workshop participants are noted in the bibliography, and this forms the largest single category in the cross-referenced list. It is important to note that these documents represent a relatively small sample of the apparently ubiquitous efforts to determine the present, and project the future, health manpower requirements. A discussion of the assessment of manpower surveys as they relate to community college program planning is presented later in this chapter.

A second largest category—Restructuring Concepts—contains stimulating articles which reflect a growing concern among educators and practitioners for the need to reevaluate present concepts of health care and services in the United States if, indeed, the national goals are to be achieved. There is a frequently reappearing plea for a reorientation of the general public from a crisis-oriented health care system to a comprehensive health services system with greater emphasis upon health maintenance and prevention. This plea appears to be one to which community colleges could respond with vigor and, drawing on their extensive community service experiences, have a major impact in the national effort toward providing health maintenance education for all Americans. Target 3 proposes the expansion of the capability of community colleges as agencies for effecting changes in local health care services and practice (see Chapter 4). It recommends a major endeavor in consumer health education to change personal health behavior habits for the maintenance of good health and the prevention of illnesses.

Another large category in the cross-referenced section of the bibliography—Community Plans and Programs—contains articles with policy statements on the need for change in the delivery of community health services and descriptions of models for the development of community-based programs. These documents show what *can* be done in responsive communities. To capitalize upon these achievements, planning for the future must be based upon the experiences gained in these commendable efforts.

Other categories in the classification section of the bibliography and their relationship to the SAHE Objective Groups follow.

Group I: Student Related Issues

Counseling and Career Mobility
Directories
Financial Aid
Minorities
Tests and Testing

Group II: Curriculum Development and Quality of Instruction

Clinical Education
Common Elements (Core)
Competency Considerations
Curriculum Development
Evaluation
Interdisciplinary Approaches and Programs
Self Instruction

Group III: Articulation, Teacher Preparation, and Continuing Education

Articulation
Consortia
Continuing Education
Teacher Preparation

Group IV: Administration and Administrative Costs

Accreditation
Credentialing (Including Licensure)
Economics (Including Costs)
Legislation and Legal Implications
Management
State and Regional Programs

Group V: Manpower Information

Information Systems
Manpower Surveys

Group VI: Emerging Health Care Programs

Community Plans and Programs
Consumer Health Education
Inner City and Rural Areas
Mental Health
Special Programs (Primary and Ambulatory Care Personnel)

CONFERENCES AND WORKSHOPS

Educational Programs for Assistants to Primary Care Physicians

Seven community colleges prepare assistants to primary care physicians in programs approved by the American Medical Association's Council on Medical Education (in collaboration with the American Academy of Family Physicians, American Academy of Pediatrics, American Academy of Physicians Assistants, American College of Physicians, and the American Society of Internal Medicine). The involvement of these community colleges (as indicated by*) is shown below:

Sponsoring Institutions	**Affiliated Institutions**
Albany, New York Albany Medical College and Hudson Valley Community College*	Albany Medical Center Hospital; Veterans Administration Hospital; St.Peter's Hospital
Baltimore, Maryland Essex Community College*	Johns Hopkins University School of Health Services; Franklin Square Hospital, Department of Family Practice
Cleveland, Ohio Cuyahoga Community College*	Cleveland Clinic Hospital; Booth Memorial Hospital; Collinwood Elder Care Center
Gainesville, Florida Santa Fe Community College*	University of Florida College of Medicine; Gainesville Veterans Administration Hospital; Shands Teaching Hospital and Clinics

Jackson, Mississippi University of Mississippi Medical Center	Veterans Administration Hospital; Hinds Junior College*, Raymond
Los Angeles, California Charles R. Drew Postgraduate Medical School/UCLA School of Medicine	UCLA Hospital and Clinic; Compton Community College*; Martin Luther King Hospital; Harbor General Hospital, Torrence; and San Bernadino County General Hospital
Marshfield, Wisconsin Marshfield Clinic Foundation for Medical Research and Education	Marshfield Clinic; St. Joseph's Hospital; University of Wisconsin Wood County Campus*; Medford Clinic; Fond Du Lac Clinic; Medical Associates Clinic; Osseo Medical Group; Neillsville Clinic; Community Medical Group, Mondovi; Schiek Clinic, Rhinelander

The AMA *Essentials* for these programs were discussed at the SAHE National Advisory Committee meetings, the regional workshops, and with representatives of the AMA's Council on Medical Education. It was the consensus that

1. Minimal requirements for the establishment of AMA approved programs for assistants to primary care physicians include
   a. Affiliation with a medical or clinical center,
   b. Availability of an enthusiastic and energetic physician to devote substantial amounts of his time to the curriculum development and program coordination,
   c. Availability of a corps of physician preceptors,
   d. Accessibility to a variety of types of clinical facilities.
2. Several of the current physician's assistant programs in the community colleges are now moving toward the awarding of the baccalaureate degree.
3. Community colleges should be encouraged to develop programs for assistants to primary care physicians only in those communities where the above-stated minimal requirements are available.

Allied Health Manpower Information

The need for better information and more effective projection of future trends in manpower requirements was identified as one of the areas of concern for the SAHE project. Types of available allied health manpower information from various sources were discussed at all SAHE conferences and workshops. Throughout this aspect of the study, the objective was the assessment of the status of these studies and their usefulness as a possible data base for community college program planning.

Allied health manpower studies are ongoing at all levels: federal, state, regional, and local. The extent of these efforts is reflected in the many project reports included in the SAHE annotated bibliography (see Appendix I).

The SAHE regional workshop reports contained the following capsules of comments from the discussions of the usability of existing allied health manpower information for community college curriculum decision making:

1. Mid-Atlantic: "Past studies were not continuous endeavors, and present available data is insufficient to make accurate projections."
2. New England: "Allied health manpower information now available does not provide information needed in a form that can be transferred into curriculum decision making."
3. North Central: "Data from past and present manpower studies cannot be used as a basis for curriculum decision making because of the problems of nomenclature (inconsistent), survey techniques (questionable), economics (the employer buys what he can afford), and data incompatibility within and between states and regions."
4. Western: "There is a need for developing new methods of obtaining health manpower information based upon (a) current allied health care needs in the communities, that is, not based upon the past and not based upon current budgets; (b) definitions of roles and functions of various categories of health care workers; (c) a broad definition of health care, to include prevention, diagnosis, therapy, rehabilitation, and to be concerned with the well being of the community population."
5. Mountain States: "It is difficult, if not impossible, to obtain current, meaningful data from national surveys for use in local curriculum planning because such studies are based upon the health care delivery system as it currently operates. The studies do not take into account the changing needs and numbers and kinds of people who will be needed to respond to anticipated legislation for Health Maintenance Organizations (HMOs), and National Health Insurance (NHI)."

The participants of the SAHE regional workshops concurred in the need for a national effort to (1) develop a standardized vocabulary for various categories of health care personnel based upon task analysis and job descriptions; (2) develop standardized methods of manpower research survey instruments, with the objective of obtaining pertinent information for distribution to curriculum decision makers; and (3) project future manpower needs through the identification of new trends in health care delivery, such as ambulatory care, extended care, and, especially, preventive systems.

Accreditation and Credentialing Processes

From the outset of the project, the SAHE staff recognized that the establishment of the credentialing *requirements* and *procedures* is the prerogative and responsibility of the national health associations and state licensure boards. The SAHE National Advisory Committee recommended that the project identify the role that AACJC could play in assisting community college personnel in their efforts to meet various credentialing requirements. Consequently, at all SAHE conferences and workshops an effort was made to identify problems created by the procedures followed in the accreditation, certification, and licensure processes.

From SAHE regional workshop reports the following findings were identified:

1. Credentialing by multiple national agencies with varying standards of procedures creates the need for AACJC to provide information and guidance to the individual colleges to assist them in their efforts toward meeting credentialing requirements. Information on costs of the accreditation process, for example, is essential for program planning, and this information needs widespread distribution.
2. The present communication policies (from the agency to the institution) places community colleges at a disadvantage in dealing with national accrediting agencies.
3. The community college philosophy of education has not been represented on most on-site evaluation teams, and frequently accreditation criteria are not consistent with creative changes in education programs and teaching practices. Often licensing mandates are so specific that program innovation is virtually impossible.
4. The consensus was that AACJC should serve as an effective liaison with national health associations to identify and resolve problems inherent in the accreditation and credentialing process (see Target 1, Chapter 4).

SAHE QUESTIONNAIRE

In April 1974 the SAHE Questionnaire (see Appendix H) was mailed to 1175 community and junior colleges, technical institutes, and two-year branch campuses of four-year colleges and universities identified by the American Association of Community and Junior Colleges in their *1973 Community and Junior College Directory*. This *Directory* includes colleges located in each of the fifty United States, the District of Columbia, American Samoa, the Canal Zone, Puerto Rico, and Canada.

The two major objectives for the SAHE Questionnaire were achieved. As an experimental prototype, it (1) provided the information needed to construct a reliable instrument for continuing surveys, and it (2) produced a data base for later comparison studies. Time did not permit follow-up inquiries to community colleges for clarification purposes, and, consequently, there are possibilities of some translation errors in the preparation of Tables X-XVI in Appendix H.

Responses to the Survey

On July 2, 1974, the data analysis began. By then there were 626 responses representing a 53 percent return. Twelve questionnaires were received without sufficient identification, leaving 614 (52 percent) to be included in the summary of the results. Unfortunately, time did not permit follow-up requests to increase the percentage of responses. One could interpret the 48 percent nonreturn to indicate colleges with no allied health and nursing education programs. This appears to be not fully substantiated since 131 colleges (21 percent) had responded and indicated no programs, and, also, all questionnaires received too late for inclusion in the study did report programs.

Table X displays, alphabetically by locality, the number of questionnaires sent and returned, including the percentage response. It also shows that the responses are broadly geographically representative, since they were received from each of the fifty states, the District of Columbia, Puerto Rico, and Canada. The 52 percent response ranged from 14 to 100 percent with 33 of the 55 localities queried (60 percent) ranging from 45 to 86 percent. This fact lends credence to the validity of extrapolations from the data reported to give at least an indication of the possible population size in community college allied health and nursing education programs during the academic year 1972-1973.

Evaluation of the Instrument

It was the purpose of Part I of the SAHE Questionnaire to obtain an assessment of the nature of clinical instruction in community college allied health and nursing education programs. Emphasis was placed upon the extent of diversification in clinical instruction and the degree of service agency personnel involvement in curriculum development, supervision, and evaluation of student performance.

A major problem in the section of Part I headed "Allied Health and Nursing Education Programs" arose in the column titled "Graduates: 72-73," where it was found that using the number of graduates in a single year as an indicator to assess the extent of a program was unwise. This is particularly true for two-year curricula, because the number probably reflects less than half of the actual student population. Also, the columns for recording the numbers of full time and part time "graduates" yielded no useful information. Consequently, in designing a future survey instrument, it is recommended that the numbers of full time and part time "students" be requested, so that the extent of the actual population in each type of program can be determined.

To determine the extent of diversification in clinical instruction, the questionnaire requested a listing of the different types of clinical settings for each program and an indication of the number of *weeks* of experience in each setting. The data revealed different interpretations of the request. For example, the number of weeks recorded sometimes exceeded the length of the program in months. One explanation for this discrepancy might be that the recorded figure was the total number of weeks during which students were scheduled for one or more days in the particular clinical setting. For a future survey instrument, it is recommended that the number of *days* of experience in each type of setting be requested.

To determine the extent of service agency personnel involvement in curriculum development, supervision, and evaluation of student performance, Part I of the questionnaire included a check list. Recipients were asked to check responsibility for clinical instruction in either of the columns headed "College Faculty" or "Service Agency Personnel." If checks appeared in both columns, it was concluded that the responsibilities were shared. Written-in comments revealed that some persons interpreted responsibility to mean only the final authority for each of the three aspects of clinical instruction, and there may be greater involvement of service agency personnel than the data show. To insure accuracy in this section, a future survey check list might include a column headed "Shared."

Part II of the SAHE Questionnaire was prepared to find out the nature and extent of community college continuing education courses in allied health and nursing education. The definition for "continuing education" in this instance included all short-term courses designed for allied health and nursing personnel to maintain minimum competency levels, to instruct in new techniques and approaches, and to develop communication, supervisory, and/or management skills.

Many respondents broadly interpreted the term continuing education to include all courses and programs for adults in the fields of allied health and nursing education. Thus similar programs appeared in both Parts I and II. For example, a tally shows 57 nurse's aide programs in Part I and 61 in Part II; 21 emergency medical technology programs in Part I and 33 in Part II. A future survey of nurse's aide, emergency medical technology, and other programs should provide more explicit directions so that similar curricula are similarly reported.

Part III was developed for the purpose of determining the nature of consumer health education in community colleges and the extent of outreach into the areas served. "Consumer health education" was defined to include courses, lectures, and/or special programs designed for those who are *well*, to assist them to maintain good health, to prevent illnesses and injuries, and to provide guidance for entry into and use of health care services.

It is recommended that a future survey of consumer health education provide sections for recording instructional lectures/course/programs separately from community services. For example, the SAHE Questionnaire included drug abuse in a list of subject areas. Many persons recorded instructional drug abuse programs here; one reported a 24-hour a day drug abuse clinic in the same space. Other types of community services mentioned, which involved both community college faculty and students, included taking blood pressures in American Heart Association programs, testing urine samples for diabetes, screening for oral cancer, and conducting weight control clinics. Since the SAHE survey instrument did not provide for a separation of consumer health informational programs from community services, it is quite possible that some community college services were not reported and, therefore, are not included in the results.

How to record the *required* community college courses in personal health and hygiene posed another problem. Some respondents reported these courses in hours and distributed the hours among several subject areas listed; they then recorded total enrollment figures in the "Number Served" column. A future survey should recognize a required course as a separate entity; thus enrollment figures would appear only once. Other special lectures and programs for students and members of the community could then be separately identified.

Because of time limitations, it was not possible to test the survey instrument before distribution to the community colleges. It is recommended that future instruments to measure progress in allied health and nursing education be tested at selected locations before they are computer-programmed and widely distributed. This would greatly lighten the tasks for those responding and facilitate the collation of the data. To allow sufficient time for the follow-up procedures frequently necessary for clarification of responses, it is also recommended that future questionnaires be timed to arrive at the colleges in early October and that data be requested for the preceding academic year.

STATUS OF CLINICAL INSTRUCTION, CONTINUING EDUCATION, AND CONSUMER HEALTH EDUCATION

In this report "program" refers to the course or series of courses offered to prepare personnel to work at a particular level in one of the health care specialties. "Curriculum" refers to the program title, such as Radiologic Technology, Medical Laboratory Technology, Dental Hygiene, Associate Degree Nursing, and Occupational Therapy Assisting. "Offering" includes lectures, courses, and/or special programs in consumer health education.

The absence of a standardized vocabulary in allied health and nursing education necessarily complicates any open-ended survey analysis and summary. In order to facilitate the management of the data, the SAHE staff established criteria for interpretation. For example, under the broad title Nursing Education, respondents reported programs ranging from 3 to 30 months. These entries were translated as follows: 18 months or more—Associate Degree Nursing; 9 to 12 months—Practical Nursing; and less than 9 months—Nurse's Aide. Similar translations were made for the medical laboratory programs, and groupings of courses were necessary in some allied health areas. For example, courses titled Radiation Therapy, Nuclear Medicine, and Radiological Technology (Therapeutic) were grouped under one curriculum title—Radioisotope Technician; courses titled Inhalation Therapy were combined with those titled Respiratory Therapy.

The experience in collating the SAHE Questionnaire results clearly demonstrated the need for a standardized vocabulary acceptable to educators, practitioners, employers, and all personnel interested in health care and services. While this ideal may be difficult, perhaps impossible, to realize, present communication problems will not diminish if the problem is ignored. SAHE Targets of Opportunity (see Chapter 4) propose several approaches for the resolution of this enormous problem.

The 614 questionnaires reveal 131 colleges with no programs in either clinical education, continuing education, or consumer health education (see Table X). This leaves 483 colleges with entries in one or more of the three areas served, as shown below.

Part I :	Clinical Instruction	441 colleges with programs	42 colleges w/o
Part II :	Continuing Education	271 colleges with programs	212 colleges w/o
Part III:	Consumer Health Education	226 colleges with programs	257 colleges w/o

Part I: Clinical Instruction Data

Tallies of the curricula titles in the 441 colleges reporting in Part I show a total of 1363 programs with 35,856 students for the academic year 1972-1973. As pointed out earlier, selecting the number of graduates as a measure of extent is now recognized as unwise, especially for two-year curricula. It has also been noted that the 52 percent response rate (see Table X) is broadly geographically representative. Extrapolation from 35,856 (allowing for one-year programs and taking into consideration some attrition), yields the possibility that the real student population in these curricula may have approached 69,000 (68,954).

Table XI displays the number of clinical instruction programs and graduates. It shows 22 curricula each of which was recorded by more than five of the 614 colleges responding. This table reveals that there were 35,108 graduates from 1089 of these programs; the remaining 193 entries show no graduates at the time the questionnaire was answered. The fact that 193 of 1282 programs are new, indicates a 15 percent growth rate for these curricula during that year.

Table XII displays the number of clinical instruction programs and graduates. It shows 54 curricula, each of which was recorded by five or fewer of the 614 colleges responding. In this table, 81 programs are distributed among 54 curriculum titles. There are 748 graduates from 48 of these programs and no graduates from 33. This indicates a

41 percent growth rate for these curricula. The titles reveal some highly specialized courses (anaplastology, for one example) which appear designed to meet a particular local requirement. Some new programs, however, such as Child Care, Community Health Worker, Health Service Aide, and Home Health Aide, seem to indicate outreaches of primary and ambulatory care into the community.

Community colleges reported clinical instruction in 16 different settings. These, with descriptions in most cases, are noted below.

1. Clinical Simulation Laboratories	
2. Clinics (separate from hospitals)	College, medical school, dental school, and other settings
3. Community Health Centers	All types: public and private, including mental health centers
4. Correctional Agencies	
5. Emergency Rescue Units	
6. Group Practice Centers	All types: medical, dental, and other health professional settings
7. Hospitals	All types: public, private, military, veterans, mental health, specialized, and nonspecialized
8. Industrial Settings	
9. Nursery Schools	All types: including day-care centers, preschool, and Head Start programs
10. Nursing Homes	All types: including extended care facilities separate from hospitals
11. Private Homes	
12. Private Offices	Physicians and dentists
13. Public Health Departments	
14. Schools	All types: public and private
15. Social Service Agencies	All human service agencies, excluding mental health
16. Specialized Institutes	Child development centers, specialized schools, and shelter programs

The SAHE staff chose five curricula to represent programs emphasizing primary and ambulatory care for tallies of the number of colleges using single and multiple clinical settings: Associate Degree Nursing, Practical Nursing, Nurse's Aide, Dental Assisting, and Mental Health Technician. Table XIII displays the number of clinical settings reported for these curricula. It shows that in 697 programs, 276 (39 percent) used a single setting. As expected, these were hospitals of various types. There were 421 programs (60 percent) with more than one setting for clinical instruction, and, in 209 (50 percent) of these, two clinical settings were reported. Most frequently the combination was hospital and nursing home/extended care facilities. In 86 programs (12 percent), three clinical settings were reported, and, most frequently, this meant hospitals, nursing homes, and community health centers. More than three clinical settings were reported in 126 programs (19 percent). These data demonstrate that a rather broad base for community outreach programs had been established in academic year 1972-1973.

Associate Degree Nursing showed the greatest extent of diversification in clinical instruction, as determined by numbers of settings included in the curricula. Of the 273 colleges reporting programs, 87 or 32 percent used a single setting and 186 or 68 percent showed multiple settings from 2 to 9. The combined data for single and multiple settings (in percentages) follows.

	Single Setting	Multiple Settings			
		2-3	4-5	6-7	8-9
AD Nursing	87	95	68	20	3
LP Nursing	103	95	21	1	0
Nurse's Aide	24	33	0	0	0
Dental Assisting	46	47	3	0	0
Mental Health Technician	16	25	7	2	1

Table XIV shows the frequency of occurrence of each clinical setting when two or more were indicated for a single program in each of the five selected curricula. It shows a wide diversity of clinical settings for associate degree and practical nursing, dental assisting, and mental health technician programs. Nurse's aide programs, however, for the most part were limited to hospitals and nursing homes. Earlier it was noted that, because of the different interpretations of the term continuing education, 57 nurse's aide programs were reported in Part I (Clinical Instruction) and 61 in Part II (Continuing

Education). Because time did not permit follow-up inquiries concerning clinical instruction settings in Part II entries, the data for nurse's aide programs in Table XIV, are incomplete, but they may, nevertheless, indicate the trend.

The 1279 settings reported for the 421 programs in the five curricula tallied appeared in the following descending order of frequency.

Hospitals	30 percent
Nursing Homes	20
Community Health Centers	13
Private Offices	12
Clinics	6
Nursery Schools	4
Group Practice Centers	3
Private Homes	2
Public Health Departments	2
Schools	3
Specialized Institutes	2
Correctional Agencies	1
Industrial Settings	1
Social Service Agencies	1

The SAHE staff selected four programs for a study of the extent of service agency personnel involvement in curriculum planning, supervision, and evaluation of student performance. Associate Degree Nursing (ADN) and Dental Assisting (DA) were chosen as representative of curricula emphasizing primary and ambulatory care. Medical Laboratory Technololgy (MLT) and Radiologic Technology (RT) were selected for comparison purposes.

Table XV summarizes the findings and shows the extent of service agency personnel involvement in all clinical settings as percentages of programs indicating shared responsibilities for supervision, selection of learning experiences, and evaluation of student performance. In a total of 823 clinical settings, the percentages of sites sharing responsibilities between college faculty and service agency personnel follow.

	ADN	DA	MLT	RT
Clinical Supervision	5	46	44	60
Selection of Learning Experiences	8	30	38	41
Evaluation of Student Performance	6	55	52	62
Average Percent	6	42	63	81

Responsibilities for clinical instruction were shared most frequently in Radiologic Technology. In about 50 percent of the clinical settings, responsibilities were shared in Dental Assisting and Medical Laboratory Technology. In Associate Degree Nursing, service agency personnel shared responsibilities least frequently with college faculties. Interpretations of these data should take into consideration the point made earlier that comments written on the questionnaires suggest that there may be a greater involvement of service agency personnel than these data show. Because of this, it is recommended that, if there is a follow-up study, either a shared column should be added or a new format designed to obtain this information.

Part II: Continuing Education Data

Part II of the SAHE Questionnaire was prepared to assess the nature and extent of community college continuing education courses in allied health and nursing education. For purposes of the questionnaire, "continuing education" was defined to include all short-term courses designed for allied health and nursing personnel to maintain minimum competency levels; to instruct in new techniques and approaches; and to develop communication, supervisory, and/or management skills.

Alphabetically by locality and by college within each, Table XVI lists all continuing education courses recorded. A summary of this information appears in Table X. This table shows that, of 1175 questionaires mailed to the community colleges, 614 (52 percent) are included in the collation of the data. These returns reveal a student enrollment of 53,152 in a total of 1098 courses during 1972-1973. Extrapolation from the enrollment figure yields an indication that the actual number of students in community college continuing education courses may have approached 102,500 (102,200).

Further examination of the data in Table X reveals that respondents from community colleges in 11 states reported more than 30 continuing education courses, as shown on the following page. These 11 states, with responses from 301 community colleges (49 percent of the total 614), accounted for 818 (74 percent) of the total 1098 continuing education courses in the entire survey. They served 39,896 (75 percent) of the 53,152 students (Table X) enrolled in all continuing education. The 301 community colleges represent 57 percent of the number of queries sent to these 11 states. Their reported enrollment was 39,896. When extrapolated to 100 percent, there is a possibility that in these states alone the actual number of students enrolled in continuing education courses may have approached 70,000 (69,992).

State	Queries Sent	Returned	Percent Response	Courses	Students
California	104	68	65	143	7,324
Florida	32	20	63	62	3,736
Georgia	24	15	63	31	1,017
Illinois	56	33	59	67	1,948
Iowa	28	12	43	106	6,652
Michigan	36	19	53	43	1,213
New York	60	36	60	54	2,173
North Carolina	67	29	43	153	8,509
Texas	65	35	54	46	2,287
Washington	27	17	63	64	1,925
Wisconsin	31	17	55	49	3,112
Total	530	301	57	818	39,896

Fewer than ten continuing education courses were reported in community colleges in 29 states, the District of Columbia, Puerto Rico, and Canada, as noted on the next page

It is interesting to note that these 32 areas, where 187 (30 percent) of the 614 colleges are located, reported 105 courses. This is 10 percent of the total (1098) community college continuing education courses. The enrollment (3566) is only 7 percent of the 53,152 total.

Within the 32 areas, the list also shows that the 187 community colleges represent 48 percent of the 389 colleges queried. There is a possibility that the number of students enrolled in community college continuing education courses may have approached only 8000 (7500). This seems to indicate a comparatively low level of community college involvement in allied health and nursing continuing education courses in these geographic areas.

Part III: Consumer Health Education Data

Part III of the SAHE Questionnaire was prepared to determine the nature and extent of community college involvement in consumer health education in the academic year 1972-1973. For purposes of the study, "consumer health education" was defined to include all courses, and/or special lectures or programs designed for those who are *well*, in order to assist them in the maintenance of their good

Locality	Queries Sent	Returned	Percent Response	Courses	Students
Alabama	23	13	57	3	129
Alaska	9	3	33	8	174
Arkansas	10	4	40	3	87
Connecticut	22	11	50	4	190
Delaware	6	4	67	1	9
District of Columbia	4	1	25	0	0
Hawaii	7	3	43	2	76
Idaho	4	1	25	0	0
Indiana	4	2	50	0	0
Kansas	25	17	68	4	136
Louisiana	7	1	14	0	0
Maine	6	6	100	8	147
Maryland	20	12	60	6	188
Mississippi	25	13	52	8	197
Montana	3	2	67	0	0
Nebraska	14	7	50	9	346
Nevada	3	3	100	2	39
New Hampshire	10	5	50	0	0
New Jersey	23	11	48	8	156
New Mexico	12	7	58	1	28
North Dakota	5	1	20	0	0
Oklahoma	19	7	37	1	23
Pennsylvania	48	10	21	9	236
Rhode Island	2	2	100	4	156
South Dakota	5	2	40	9	595
Tennessee	19	14	74	4	251
Utah	5	1	20	1	9
Vermont	7	4	57	1	50
West Virginia	8	4	50	0	0
Wyoming	7	3	43	0	0
Puerto Rico	17	5	29	1	29
Canada	10	8	80	8	315
Total	389	187	48	105	3566

health, to prevent illnesses and injuries, and to provide guidance for entry into and use of health care services.

Table XVI displays alphabetically by locality and by college the consumer health education courses reported. Table X is a summary showing the number of consumer health education offerings reported: 645 offerings in the 614 community colleges with a total of 115,649 individuals. Extrapolation from the 52 percent response yields an indication that the total number of persons reached may actually have approached 222,500 (222,436).

Examination of all consumer health education offerings shows that community colleges in seven states reported 30 or more as shown here.

State	Queries Sent	Returned	Percent Response	Offerings	Individuals Served
California	104	68	65	64	10,978
Illinois	56	33	59	51	10,549
Iowa	28	12	43	42	3,525
Michigan	36	19	53	34	2,171
New York	60	36	60	41	10,983
North Carolina	67	29	43	57	4,571
Texas	65	35	54	41	23,112
Total	416	232	56	330	65,889

These seven states, with responses from 232 community colleges (38 percent) of the total 614, accounted for 330 offerings (51 percent) of the total 645 consumer health education offerings. They served 65,889 individuals (57 percent) of the total 115,649 (see Table X).

When the data from these seven states are separately considered, it is observed that 232 (56 percent) of the 416 colleges queried reported 330 offerings serving 65,889 individuals. An extrapolation from this figure suggests the possibility that the number served in these seven states alone might approach 117,700 (117,659).

The findings from Part III parallel those of Part II. Both show an extensive involvement of community colleges in allied health and nursing education. In fact, each of these seven states reporting 30 or more offerings in consumer health education also reported more than 30 continuing education courses.

Fewer than ten consumer health education offerings were reported in the 29 states, the District of Columbia, Puerto Rico, and Canada. The data appear below.

State	Queries Sent	Returned	Percent Response	Offerings	Individual Served
Alabama	23	13	57	5	348
Alaska	9	3	33	5	n/r
Arkansas	10	4	40	3	128
Colorado	16	8	50	7	283
Connecticut	22	11	50	0	0
Delaware	6	4	67	0	0
District of Columbia	4	1	25	0	0
Hawaii	7	3	43	1	25
Idaho	4	1	25	1	30
Indiana	4	2	50	0	0
Louisiana	7	1	14	1	27
Massachusetts	39	21	54	2	110
Mississippi	25	13	52	9	1122
Missouri	20	9	45	3	302
Montana	3	2	67	0	0
Nebraska	14	7	50	8	330
Nevada	3	3	100	1	30
New Jersey	23	11	48	0	0
New Mexico	12	7	58	1	20
North Dakota	5	1	20	0	0
Oklahoma	19	7	37	6	2088
Pennsylvania	48	10	21	0	0
Rhode Island	2	2	100	2	800
South Dakota	5	2	40	5	380
Tennessee	19	14	74	2	125
Utah	5	1	20	2	306
Vermont	7	4	57	3	139
West Virginia	8	4	50	1	40
Wisconsin	31	17	55	9	1050
Wyoming	7	3	43	2	101
Puerto Rico	17	5	29	1	200
Canada	10	8	80	0	0
Total	434	202	47	80	7984

When the data from these 32 areas are examined separately from the remainder of the survey, it is found that 202 community colleges (47 percent) of the 434 colleges in these areas reported 80 offerings serving 7984 individuals. Perhaps college consumer health education courses might have reached 16,980 persons. These data also parallel the Part II findings and indicate a correspondingly low level of involvement in consumer health education in similar geographic areas.

Summary and Conclusions

As a whole the SAHE Questionnaire data for the academic year 1972-1973 indicate an extensive potential in community and junior colleges for the preparation of allied health and nursing personnel for the delivery of primary and ambulatory care. Part I data in Tables XI and XII reveal 35,856 graduates of 1363 programs distributed among 76 curricula titles. When the 52 percent response rate is considered and an extrapolation made, there appears a possibility that the actual number of graduates of these programs may have approached 69,000 (68,954). Colleges reported clinical instruction in a wide diversity of settings and gives indication of varying levels of service agencies personnel involvement in curriculum planning, supervision, and evaluation of student performances.

Parts II and III provide evidence of the massive potential of community colleges in continuing education and consumer health education. The SAHE Questionnaire data reveal 1098 courses in continuing education with an overall enrollment of 53,152. Extrapolation from this figure indicates a possibility that enrollment in community college continuing education courses may have approached 102,500 (102,200). In consumer health education a similar picture emerges, with 115,649 individuals reached through 645 offerings. The extrapolated figure indicates the possibility that these programs may have reached as many as 222,500 (222,436) during academic year 1972-1973.

The 1972-1973 questionnaire data appeared to show a geographic concentration of community colleges in seven states: California, Illinois, Iowa, Michigan, New York, North Carolina, and Texas. A closer look, however, reveals that these states, with 36 percent of the community colleges, served approximately 38 percent of the total population. The remaining 64 percent of community colleges were distributed among 47 geographic areas and served 62 percent of the total population. These observations indicate that community colleges were about equally distributed in terms of the percentages of the population they served.

When comparisons are made on the basis of numbers of individuals served in continuing education and consumer health education offerings, a different picture emerges. It is found that 36 percent of the community colleges were reaching 57 percent of the total number of persons in these courses (53,152 + 115,649 = 168,801). On the other hand, 64 percent of the colleges were reaching only 43 percent of this total figure. These figures show that (1) seven states demonstrated high capability for reaching large numbers of individuals and (2) there exists unused community college potential in 47 geographic areas.

The compaction of high levels of community college involvement in seven states pinpoints locations for evaluation studies of allied health and nursing education programs. Before such studies can be initiated, however, research and development efforts are required to prepare survey instruments. A reliable device is required to determine the extent that subject matter contents and instructional methods correlate with increased access to and/or improved quality of community health care and services. In addition, ways and means of measuring the effectiveness of consumer health education programs must be found to determine the extent that contents and methods effect changes in personal health attitudes and behaviors. The design of such instruments is an enormous undertaking; in spite of this, the problem must soon be faced. The SAHE data demonstrate a great deal of action already underway that must be evaluated, so that future program planning can be based upon past experiences.

Table X provides a basis for future program planning and, at the same time, a base line for comparison to determine the extent of progress in programs initiated after academic year 1972-1973. Table X also indicates that, although real progress has been made, there is still more to be done.

The results of the SAHE survey demonstrate the recent progress community colleges have made in allied health and nursing education. The data sharpen the focus on what needs to be done if national goals are to be achieved. All findings of the SAHE project contributed to the structuring of the five SAHE Targets of Opportunity—an action plan for further development of the present community college potential through a more significant role in mobilizing resources for increased access to and improved quality of local health care and services.

CHAPTER 4

SAHE recommendations: targets of opportunity

The SAHE staff analyzed in detail the information contained in the reports prepared from the regional workshops and the National Advisory Committee meetings. When the problems, resources, and the proposed strategies were collated, it became obvious that increased access to health care and services within the communities of the United States will require four sequential steps: first, maintenance of the communication channels opened by SAHE; second, both national and local coordination through collaborative planning; third, a dispersal system for the dissemination of essential and relevant information; and, fourth, plans for mobilizing existing community resources (see Figure 1, next page).

The five Targets of Opportunity outlined on the following pages are units of an action plan for mounting the sequence of steps to a nationwide collaborative effort. The targets emerged from the general areas of concern which consistently surfaced in the regional workshops and were reinforced in the deliberations of the National Advisory Committee conferences. Collectively, they represent the amalgamation of the strategies proposed for the resolution of the multiplicity of problems existing at the grass roots level in the community college allied health and nursing education programs.

Each target presents a broad area for directing a nationally coordinated effort to resolve a wide range of problems and issues, many of which could be a basis for separate mini-projects. Careful analysis, however, reveals a close interdependency among the targets and strengthens the premise that the goals within individual targets could be achieved more efficiently from concomitant efforts using common resources. Figure 2 depicts the Targets of Opportunity and their relationships to the long-range goal of increased access to community primary and ambulatory care.

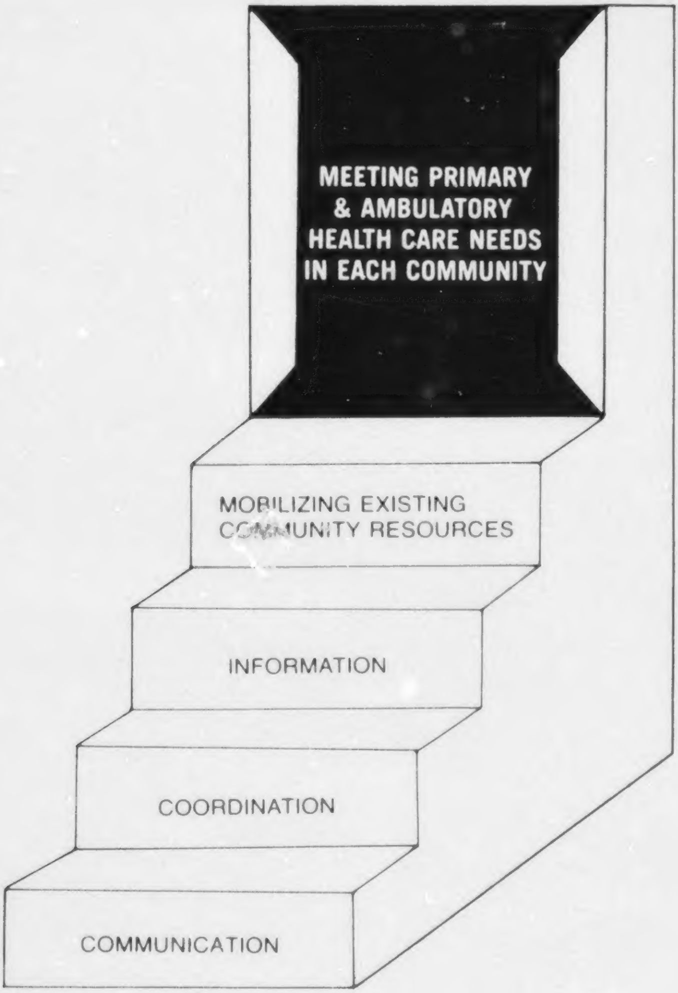
MEETING PRIMARY
& AMBULATORY
HEALTH CARE NEEDS
IN EACH COMMUNITY
MOBILIZING EXISTING
COMMUNITY RESOURCES
INFORMATION
COORDINATION
COMMUNICATION

FIGURE 1: Sequence of Steps Required in a Nationwide Collaborative Effort to Meet Community Primary and Ambulatory Care Needs.

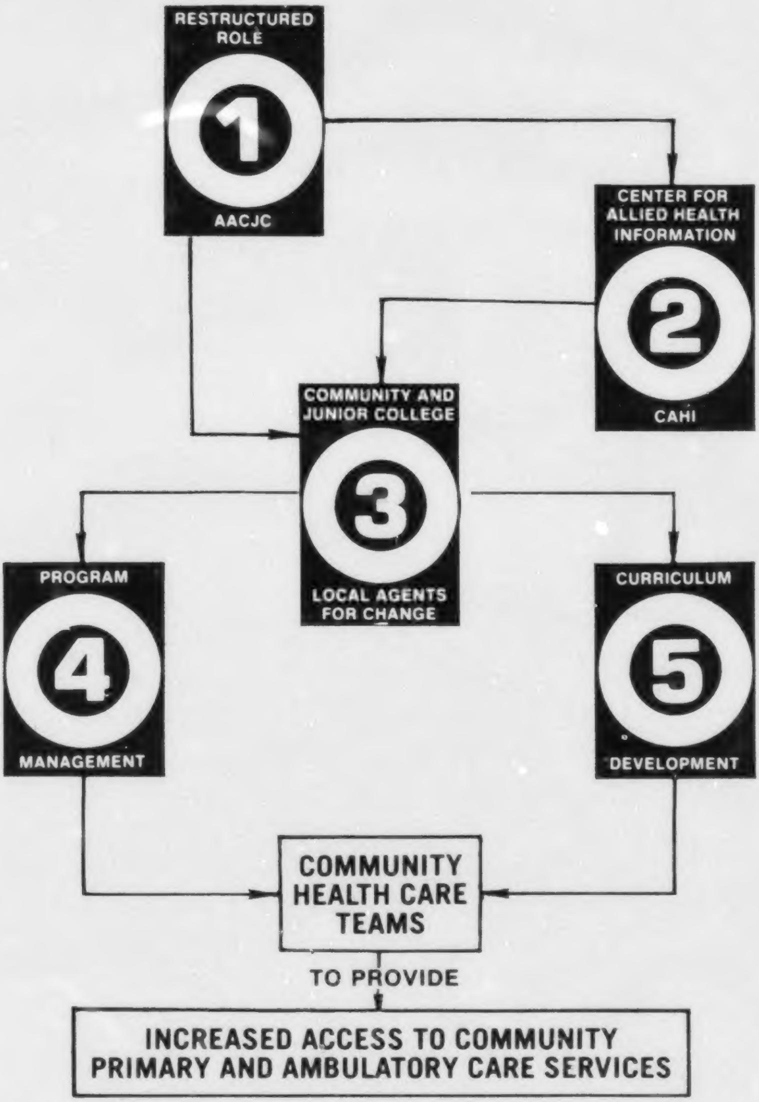
RESTRUCTURED ROLE
1
AACJC
CENTER FOR ALLIED HEALTH INFORMATION
2
CAHI
COMMUNITY AND JUNIOR COLLEGE
3
LOCAL AGENTS FOR CHANGE
PROGRAM
4
MANAGEMENT
CURRICULUM
5
DEVELOPMENT
COMMUNITY HEALTH CARE TEAMS
TO PROVIDE
INCREASED ACCESS TO COMMUNITY PRIMARY AND AMBULATORY CARE SERVICES

FIGURE 2: Proposed Targets of Opportunity and Their Relationship to the Achievement of Increased Access to Community Primary and Ambulatory Care.

TARGET ①

A Restructured Role for AACJC to Insure Accountability in Community College Programs for Health Technology Personnel with Special Emphasis on the Delivery of Primary and Ambulatory Care

such as:

1. Implementing the Center for Allied Health Information (CAHI) which will provide the framework for AACJC's restructured role in health technology education (see Target 2).

2. Providing community colleges with technical assistance and guidance through a full time staff (based at AACJC) available for on-site consultations to mobilize community resources for increasing access to local primary and ambulatory care (see Target 3).

3. Providing community colleges with a voice in the federal, state, and local legislative processes establishing funding levels for—

    a. Traineeships and loans for faculty, teacher preparation, and students in health technology programs.

    b. Special projects designed to help change and improve existing allied health and nursing education programs, so that they can more effectively respond to new approaches in primary health care delivery.

4. Providing effective liaison with national professional health associations/agencies to identify problems inherent in the process of articulation, accreditation, certification, and licensure by assuming the responsibility of working toward obtaining—

    a. Representation of community college philosophy on accreditation site visits.

    b. Appropriate community college representation on councils of accreditation for health professions education.

5. Implementing plans for effecting attitudinal changes in legislators, trustees, and administrators, so that they can respond appropriately in assigning budget priorities for programs in allied health and nursing education.

6. Providing effective and continuing liaison with special interest groups to insure open communication between community college allied health and nursing interests and affirmative action programs, socially and economically disadvantaged, veterans, and collective bargaining groups.

7. Encouraging the development of a national glossary of terms and definitions to improve the effectiveness of communication among health technology educators and students, practitioners, employers, legislators, and consumers.

TARGET 2

Establishment of a Center for Allied Health Information (CAHI)

The SAHE priority data pointed to the need for the establishment of a dynamically functional clearinghouse to provide community college program planners with the information they need for sound decision making in allied health and nursing education. The SAHE annotated bibliography (see Appendix I) represents a beginning effort to assemble literature relevant to allied health and nursing education. Information will continue to be generated by the organizations/agencies shown in Figure 3. The development of the present potential in community college allied health and nursing educational programs is dependent for their solution upon a continuing flow of accurate and current information concerning resources, requirements, trends, issues, problems, and strategies. Designed to meet these requirements, this target is essential for overcoming the futility of action without planning and the frustrations of planning without action. It provides the structure for the communication and coordination necessary to obtain the information required for mobilizing resources to meet community health care needs. It suggests that the initial SAHE efforts to assemble available information be continued through the establishment of a Center for Allied Health Information (CAHI).

Examples of documents that CAHI should contain are outlined here.

1. Descriptions of functional models in allied health and nursing education programs which emphasize primary and ambulatory care, such as—
    a. Consumer health education programs.
    b. Interdisciplinary team training, both preclinical and clinical.
    c. Use of modular instruction, in both preclinical and clinical phases, based upon task analysis studies and designed to meet well-defined behavioral objectives.
    d. Programs which provide for the improvement and diversification of clinical instruction through more effective use of

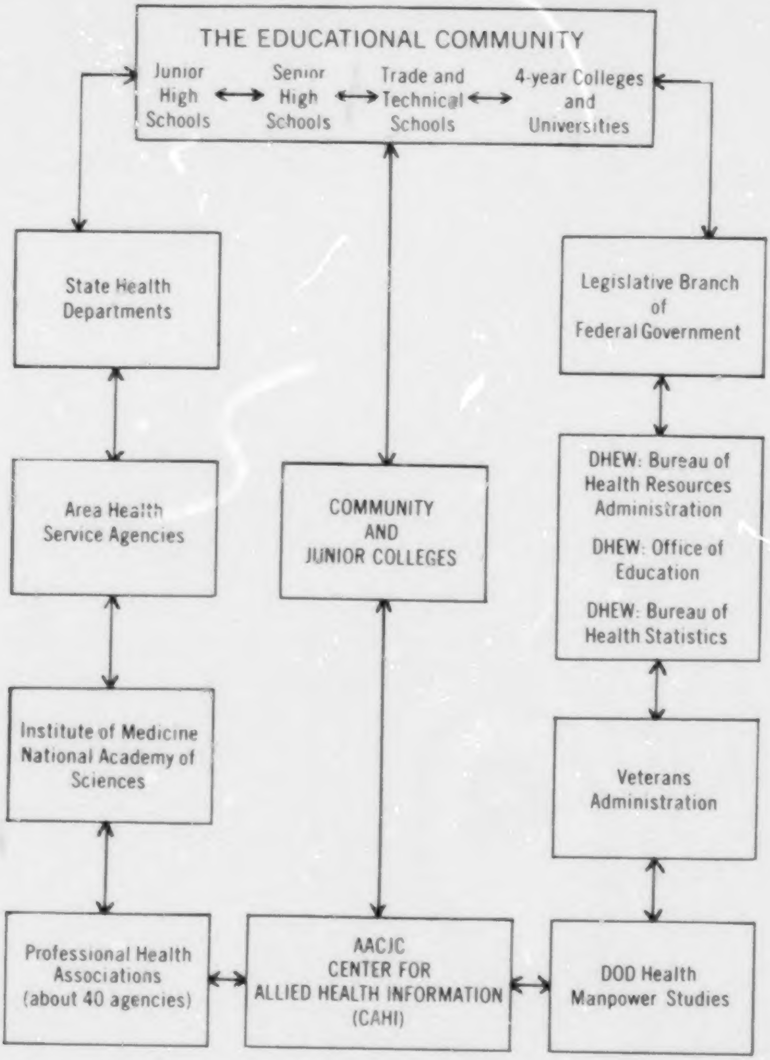
THE EDUCATIONAL COMMUNITY
Junior High Schools
Senior High Schools
Trade and Technical Schools
4-year Colleges and Universities
State Health Departments
Legislative Branch of Federal Government
Area Health Service Agencies
COMMUNITY AND JUNIOR COLLEGES
DHEW: Bureau of Health Resources Administration
DHEW: Office of Education
DHEW: Bureau of Health Statistics
Institute of Medicine National Academy of Sciences
Veterans Administration
Professional Health Associations (about 40 agencies)
AACJC CENTER FOR ALLIED HEALTH INFORMATION (CAHI)
DOD Health Manpower Studies

FIGURE 3: Center for Allied Health Information (CAHI) – Communications Channels

- outpatient clinics.
- family care centers.
- nursing home and extended care facilities.
- home settings.
- community centers for health care: drug abuse, venereal disease, alcoholism, anti-smoking, and others.

2. Description of functional models of—
   a. Consortia planning.
   b. State articulation.
   c. Interdisciplinary educational programs.
   d. Inservice continuing education programs for teachers, clinical supervisors, and allied health personnel.
   e. High school allied health programs.

3. Lists of resource personnel (consultants)—
   a. Affiliated with successful allied health and nursing education programs emphasizing primary and ambulatory care.
   b. Willing to serve as consultants for administrators and/or educators who wish to develop community programs emphasizing primary and ambulatory care.

4. Reports of student progress studies, particularly those designed to determine the extent of correlation between performance levels and—
   a. Student entry profile records.
   b. Recruitment and retention programs.

5. Guidelines for counselors to include—
   a. Realistic career opportunities and possible mobility patterns in the various disciplines.
   b. Program requirements.
   c. Accurate job descriptions.
   d. Availability of loans, traineeships, and scholarships and of reports of equivalency/proficiency testing programs

related to granting credit for knowledges and skills obtained in nontraditional ways and involving

- academic credit.
- advanced standing.
- meeting credentialing requirements.

6. Reports of on-the-job performance evaluations of graduates in the primary and ambulatory care settings to insure that—
    a. Graduates do meet expectations of employers.
    b. Graduates obtain positions commensurate with their level of training.
    c. The curriculum is revised and updated when necessary to meet the job requirements.
7. Reports of the status of minorities in allied health and nursing careers, such as—
    a. Numbers of students in community college allied health and nursing education programs.
    b. Numbers of students at various levels in these programs.
    c. Numbers in community college faculty positions.
    d. Numbers in the overall work force in positions at all levels of responsibility.
8. Reports of the program outcomes as a result of improved utilization of teaching facilities and equipment for clinical instruction, with emphasis on primary and ambulatory care.
9. Reports of the status of continuing education in allied health and nursing education programs which emphasize primary and ambulatory care, especially those referring to the—
    a. Relationship to health professional associations.
    b. Effectiveness of such innovative approaches as self-instruction through multimedia programs, cable television, and teleconferences.
    c. New approaches to interdisciplinary education.
    d. Relationship of Continuing Education Units (CEU) to competency-based programs.

10. Reports of the effectiveness of various methods of clinical instruction in the primary and ambulatory care settings, such as—
    a. Modular instructional packages.
    b. Self-paced learning systems based on competency-based performance objectives.
    c. Methods of coordinating on-the-job performance with clinical instructional programs.
11. Reports of roles-and-functions studies in primary and ambulatory care settings.
12. Reports of cost analysis studies, so that Full Time Equivalent (FTE) funding formulas can take into account costs of continuing education, consumer health education, and other unique features of allied health and nursing education for primary and ambulatory care.
13. Reports of the status of federal legislation relating to allied health education on items such as—
    a. Funding and revenue sharing.
    b. National Health Insurance (NHI).
    c. Area health service agencies.
14. Outlines of problems and/or issues in—
    a. The accreditation and credentialing processes with emphasis upon the structure of accreditation teams to include representation of community and junior college philosophy.
    b. Establishing criteria for student/teacher ratios as they relate to
        — minimal staffing levels for quality in academic and clinical instruction.
        — the curriculum requirements in various courses of the same allied health program.
        — curriculum requirements in the various allied health disciplines.

c. Articulation including

- all levels of allied health educational programs (high school, two- and four-year institutions).
- various types of programs, including open door policies, universities without walls, and other emerging educational programs.
- identification of common elements (core) for transfer credit among various allied health disciplines.
- the basic considerations required for the development of written transfer agreements.
- an assessment of the results of model state articulated programs to provide equal accessibility to upper division credits for transfer students.

d. The changing concepts of continuing education in each allied health discipline, as related to

- relationship to health professional associations.
- effectiveness of such approaches as self-instruction through multimedia programs, cable television, and teleconferences.
- new approaches to interdisciplinary education.
- use of competency-based objectives as a basis for CEU.
- collective bargaining agreements.
- possible funding patterns designating fiscal responsibility of employers and practitioners.

TARGET 3

Expansion of the Capability of the Community and Junior Colleges as Local Agencies for Effecting Changes in Local Health Care Services and Practice Through Allied Health and Nursing Education

by:

1. Establishing a major effort in the critical aspects of consumer health education to change personal health behavior habits for the maintenance of good health and the prevention of illness and injuries through—

   a. Community college courses designed to help individuals relieve the strains of life and living caused by factors such as water and air pollutants, urban crowding, traffic congestion, noise, economic instability, and general societal unrest.

   b. Courses, special lectures, and programs presented in various community locations and designed to provide health information to change personal attitudes and behavior with regard to

      — alcoholism.
      — smoking.
      — cancer.
      — cardiopulmonary resuscitation.
      — diabetes.
      — drug abuse.
      — emergency medical care.
      — family planning.
      — heart disease.
      — mental health.
      — stroke.
      — venereal disease.
      — weight control.

   c. Programs for orientation to the overall health care system: its components, locations, avenues of entry, and use.

    d. Full utilization of established community-based programs by various local health agencies and voluntary groups.

2. Actively participating in local (grass roots) community and health service planning programs to identify the needs and develop plans for meeting these needs through the use of existing community resources, such as—
    a. Initial and continuing systematic assessment of allied health and nursing manpower requirements in the local area.
    b. Adequate budgeting for allied health education.
    c. Utilization of available federal, state, county, and private funding sources.
    d. Staffing needs and how they can be met.
    e. Facilities and equipment needs and how they can be met in the local community.
    f. Coordination of local efforts among educational institutions (high school and two- and four-year colleges) and all clinical facilities to include hospitals, extended care facilities, and state and local health departments.
    g. Evaluation, feedback, and program revision when indicated.
    h. Follow-up studies of students and graduates to calculate enrollment predictions, attrition rates, and student placement.

3. Active participation as coequal partners in *regionally* collaborative planning for—
    a. Establishing functional relationships among personnel in community colleges, four-year institutions, health care facilities, and federal, state, and local health programs for more efficient use of
        - manpower for allied health education and practice.
        - clinical education resources, including all types of clinical settings and round-the-clock utilization.
        - curriculum materials, including use of available media.
        - teaching facilities in educational institutions.

- programs for inservice continuing education for allied health educators and practitioners.
- available funding resources (federal, state, and county sources and area health service planning agencies).

b. Articulation among educational institutions by

- preparation of well-defined curricula outlines for each course spelled out in terms of competency-based performance requirements that can be used as a base for transfer agreements.
- interinstitutional faculty exchange programs to include exchange among colleges and clinical facilities.
- the identification of common elements for transfer credit from hospital-based programs, proprietary schools, high schools, and two- and four-year college programs.
- use of proficiency/equivalency testing programs when applicable.

4. Increased access to primary care in the inner city and rural areas through existing allied health and nursing preclinical and clinical programs with emphasis upon—

   a. Full utilization of available local educational and health care facilities in the inner city and rural areas.

   b. Full utilization of available local human resources: physicians, dentists, nurses, and allied health workers, as well as personnel associated with local facets of federal, state, and county health care programs.

   c. Realistic student recruitment and retention procedures in consonance with local affirmative action programs.

5. Redesigning of existing allied health and nursing education programs, both preclinical and clinical, to include new clinical settings which are responsive to community demands for ambulatory care, emergency medical care, community health care, hospital outreach programs, mental health, and others.

6. Establishing educational programs for primary care assistants in community colleges where AMA *Essentials* criteria for accreditation can be met (see Chapter 3).

7. Planning and implementing of allied health and nursing education programs for primary care to upgrade lower level health delivery employees of hospitals, nursing homes, and extended care facilities.

8. Providing orientation programs for administrators, faculty, counselors, and students to the changing concepts in the delivery of health care services and the need for increased emphasis on primary and ambulatory care.

TARGET ④

Establishment of Sound Program Management Procedures to Insure Accountability for Community College Programs in Allied Health and Nursing Education

1. Providing for the unique requirements for the maintenance of community college allied health and nursing programs to meet criteria for acceptability, such as—
    a. Start-up and maintenance costs of new programs.
    b. Curriculum revision to meet changing health care needs.
    c. Criteria for selection of clinical affiliations.
    d. Preparing formal clinical affiliations agreements.
    e. Minimal staffing levels for basic science courses and clinical instruction.
    f. Human resources in addition to teaching staff: advisory committee, consultants, consumers, and students.
    g. Space and equipment requirements for basic science courses and clinical instruction.
    h. Procedures required for the accreditation of health technology programs.
    i. Evaluation and feedback quality control procedures.
    j. Criteria for student selection.
    k. Collective bargaining agreements which influence student services support and support personnel for programs.
    l. Legal aspects, for example, liability insurance for students and faculty.
2. Providing incentives to encourage —
    a. Allied health and nursing personnel to enter the instructional field.
    b. Allied health and nursing faculty to participate in continuing education programs and workshops.

3. Establishing avenues for interdepartmental and interinstitutional coordination and cooperation to insure the development and continuing evaluation of—

   a. Counseling programs to assist junior and senior high school students in their educational decision making based upon accurate information related to opportunities in allied health and nursing careers.

   b. Including counseling as a part of the academic process—"every teacher a counselor."

   c. Providing for academically deficient students to enter and be retained in allied health and nursing education.

   d. Providing courses and programs to assist lower salaried health delivery employees to upgrade their skills.

   e. Follow-up studies of community college graduates to

      — provide state, regional, and nationwide data compatibility.

      — insure that the numbers of graduates seeking employment do not markedly exceed the demand for services.

      — provide feedback data from employers to educators for curriculum refinement.

      — identify the continuing education needs of the graduates.

      — determine the distribution and utilization of the graduates of health technology programs in the immediate geographic area of the community college.

   f. Quality control procedures through

      — internal and external program evaluation by appropriate committees structured to include interdisciplinary representation of practitioners, professional organizations, and consumers and students.

      — evaluation procedures for continuing education courses to insure that they result in increased quality of health care services.

      — providing flexibility for change to increase efficiency in the attainment of instructional goals.

TARGET ⑤

Restructuring of Existing Curricula for More Effective Academic and Clinical Programs in the Health Technologies

through:

1. Reviews and, if necessary, revision of existing community college course outlines to include—
    a. Clearly-stated performance-based objectives.
    b. Effective instructional methods.
    c. Testing, evaluation, and feedback procedures.
    d. Realistic entry requirements.
    e. Responsiveness to new demands for primary and ambulatory care, emergency medical care, community health care, mental health care, and others (when applicable).
    f. Consumer health information designed to change attitudes and personal health behavior habits.
2. Establishment of continuing procedures for curriculum evaluation and feedback processes among the community college faculty, clinical supervisors and practitioners, graduates, and employers to insure quality in the overall allied health and nursing educational programs.
3. The development of more effective clinical education programs for allied health and nursing personnel by—
    a. Continuing involvement of clinical personnel in curriculum development and teaching to reflect changes in fields of practice.
    b. Increasing the emphasis on primary and ambulatory care in the preclinical and clinical phases of existing community college allied health and nursing programs.
    c. The redesign of existing allied health and nursing education programs to provide interdisciplinary courses and prepare personnel to work together dynamically as a coordinated health care team.

d. The restructuring of present clinical instruction through the improvement, diversification, and more effective use of

- — outpatient and ambulatory care clinics.
- — family care centers.
- — nursing home and extended care facilities.
- — community outreach centers for drug abuse, venereal disease, alcoholism, anti-smoking, family planning, and others.
- -- home settings.

4. The development of more effective continuing education programs for allied health and nursing educators and practitioners to include—

a. Refresher and retraining based upon present skills for

- — maintaining competencies.
- — developing awareness of the capabilities of the new categories of allied health workers in the coordination of primary care delivery.
- — upgrading in supervisory, management, and communication skills.
- — upgrading in the basic sciences.
- — preparation for increased responsibilities.
- — understanding the new technological advances in clinical practice.
- — increasing awareness of the importance of quality control procedures for delivery of primary care.
- — improved interpersonal relationships.

b. Interdisciplinary problem-solving workshops.

c. Establishment of outreach capability with emphasis on the community college as a focus for community education in rural and small urban areas.

d. Development of weekend and evening offerings in order to increase availability of continuing education.

5. Teacher preparation programs—
    a. Based upon determinations of competencies for beginning teachers in allied health disciplines.
    b. Designed for the interdisciplinary orientation to include common academic elements (core) and common clinical components and to provide a basis for goal-oriented personnel working dynamically as a team.

CHAPTER 5

Sahe projections

The present limited access to health care and services has emerged as a major concern in the United States. In many cities, rural areas, and suburbia as well, the hospital emergency room is now the door usually open; and often this leads into an overcrowded waiting room. This situation exists in spite of enormous investments by both the federal government and private foundations on projects for health manpower development and the improvement of health care delivery. It indicates that past premises which established funding priorities need to be reexamined to determine the extent of their validity for today and opens the probability that new premises may be required and new policies established to plan for increased access to community health care and services with an emphasis on primary and ambulatory care.

It seems to be generally accepted that the present crisis-oriented health care delivery system is inadequate to respond to the increasing crescendo of demands for health care and services. In both literature and rhetoric, new combinations of words are appearing that seem to portend changing concepts concerning the establishment of priorities to meet the national requirements. One example of this new focus is the frequent replacement of the term medical care with health care, health care services, and, more recently, comprehensive health services. If the terminology in the literature and rhetoric can be used as a trend indicator, then a projection can be made for an increase in the enclaves proposing an expansion of the national vista from exclusive focus on the more crisis-oriented acute care needs toward the long-range and widespread requirements for health maintenance programs with greater emphasis upon prevention. As the thinking of health professionals moves in this direction, it seems logical to conclude that numerous educational programs may need to be restructured to prepare community college allied health and nursing personnel for a more significant role in the provision of such services. It also mandates action for more effective utilization patterns, interdisciplinary collaboration, and teamwork with medicine, dentistry, and other health care providers.

The SAHE Questionnaire data give indication of extensive involvement of community colleges in seven states in various aspects of allied health and nursing education during the academic year 1972-1973. Any action plan for the future must include realistic plans for program evaluations to obtain objective data on outcomes. Accordingly, the SAHE staff projects the need for community college program planning to determine the level of correlation between curriculum content and the performance of graduates, between continuing education programs and increased quality of health care and services, and between consumer health education and actual change in personal health behavior.

Community and junior colleges are uniquely qualified institutions to provide a major national thrust toward the goal of increased access to health information and services in the communities they serve. They constitute an established, geographically widespread system, already in place, which could catalyze the action necessary in over 1000 communities where, almost concurrently, the work of identifying health care needs and resources could proceed. Community colleges have the potential for playing significant roles in the preparation of comprehensive health service plans through the mobilization of the present local resources. Their current community-oriented philosophy provides the matrix for responding to changing societal needs in the local area. One evidence of their unique response flexibility is shown in the gradually changing concept of the "typical" community college student, from the 18- to 19-year stereotype to a diversified age profile with the average age for full time and part time students gradually increasing.

More evidence of the community college potential for responsiveness to local needs is found in their off-campus programs, which bring instruction to the learners, and the recent increased use of the self-contained and self-administered instruction in these programs. Community college administrators and faculty have been leaders in the movement toward better integration of formal instructional experiences with the working situation. The potential for reaching large numbers of students is demonstrated by the magnitude of the 1972-1973 enrollments reported in the SAHE Questionnaire from 52 percent of the colleges queried. From these facts it seems reasonable to project a picture of extensive collaborative efforts among health care educators and practitioners, moving the nation rapidly along the pathway toward the common goal of increased access to community health maintenance and services for all Americans; stated in another way—a nation of healthy people in a healthful environment.

appendix

- advisory committee
- guidelines
- participants
- workshops
- objectives
- questionnaire
- bibliography

APPENDIX A

Sahe national advisory committee: members

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APPENDIX B

first national advisory committee meeting: guidelines for participants

The overall SAHE project objective is the development of a system for the continuing identification and solution of major problems associated with the national effort to meet allied health and nursing manpower requirements, particularly as they relate to community and junior colleges. The objectives for the members of the National Advisory Committee are to (1) review and refine the tentative SAHE objectives prepared by the SAHE staff and to assign an appropriate priority sequence to each objective and (2) prepare strategies of approach toward the achievement of each objective.

SUGGESTED PROCEDURE FOR EACH WORK GROUP

1. Clarify the statement of each SAHE objective, that is, reword or define terms if necessary.

2. Identify the components that need to be studied, questions that should be raised, areas that require emphasis, and, if appropriate, assign a priority to the identified components.

3. List resources to be used in approaching the objective, for example, existing models, studies in progress, library aids, agencies, and people.

4. Outline suggested strategies that may be employed in the effort to achieve the SAHE objective, for example, state a priority of steps to the attainment of the objective, identify subprojects to be implemented, and indicate a means of evaluation.

TENTATIVE SAHE OBJECTIVES

(For distribution at the First National Advisory Committee Conference)

1. To develop a plan for the establishment of an information system designed to provide a national data base reflecting the continuing need for and the present output of all educational programs in the various categories of allied health practitioners, including an effective means of projecting future trends in allied health and nursing manpower requirements.

2. To develop a plan for the assessment of allied health and nursing manpower potential in emerging health systems, such as ambulatory care, emergency health care, primary care, and all evidences of outreach from hospitals into community health care programs.

3. To develop plans for improving the effectiveness of clinical education programs with particular emphasis on innovative approaches to clinical instruction of allied health and nursing practitioners.

4. To develop ways and means of providing for better articulation between and among all levels of allied health and nursing education programs: high schools, community and junior colleges, and four-year institutions, including the need for better transfer agreements with four-year institutions.

5. To design a functional system for the improvement of curriculum and the assessment of allied health and nursing instructional techniques, including the application of new educational media.

6. To establish efficient and effective procedures for the recruitment, counseling, and placement of students in allied health professional and technical work.

7. To prepare a plan for more effective relationships between AACJC and the associations/agencies of the health professions.

8. To prepare a plan for the assessment of the multiple avenues of teacher preparation for allied health and nursing instructors, including on-campus staff development programs, cooperative programs with specialists in nearby universities, and comprehensive graduate programs in teacher preparation.

9. To identify the problems of accreditation, certification, and licensure, particularly as they relate to more efficient methods of assessment of quality of education in allied health and nursing programs and prepare recommendations for their solution.

10. To determine the possible role of community and junior colleges in the expanding area of continuing education for allied health and nursing practitioners.

11. To assess the role of minorities in allied health and nursing education so that equal representation is assured. This should include a study of programs for the academically disadvantaged, too.

12. To develop a plan for determining the costs of allied health and nursing education programs, including the areas of administration and management.

13. To assess the need for traineeships and scholarships for students in allied health and nursing programs.

WORKSHEET FOR ASSSIGNING PRIORITIES TO THE FIVE TOPICAL OBJECTIVE GROUPS AND TO EACH OF THE SIXTEEN REVISED OBJECTIVES

OBJECTIVE GROUP	REVISION OF TENTATIVE *SAHE* OBJECTIVES	PRIORITY (1 = highest)
I STUDENT RELATED ISSUES	To establish realistic strategies for information-giving, recruitment, financial aid, development studies, advising, counseling, retention, placement, and follow-up of students in allied health and nursing education. Special emphasis should be placed on recruiting men (*Tentative Objective* 6).	
	To assess the current status of minorities (blacks, Indians, and Spanish-speaking people) in allied health and nursing education in order to bring about appropriate representation among student staff and overall work force (*TO* 11).	
	To assess the need for traineeships and scholarships for students in allied health and nursing programs and to make specific recommendations to meet that need (*TO* 13).	
II CURRICULUM DEVELOPMENT AND QUALITY OF INSTRUCTION	To establish a dynamic system or clearinghouse for the identification of resources for planning, implementing, upgrading, and increasing cost/effectiveness of allied health and nursing education curricula. Could it be a two-way program? Who has the needs? Who has the resources?	
	To develop a plan for providing basic information for development of programs that respond to changing needs for health services versus fitting products into traditional models of care (*TO* 5).	

	To assist colleges in understanding the administrative implications of providing the clinical portions of allied health and nursing programs and to develop more efficient and effective systems for mobilizing available resources (*TO* 3). To develop ways of mobilizing the potential of community and junior colleges in continuing education for allied health and nursing educators and practitioners (*TO* 10).
III ARTICULATION, TEACHER PREPARATION, AND CONTINUING EDUCATION	To prepare a plan aimed at achieving the most effective and appropriate teacher preparation to assure optional utilization of allied health and nursing instruction (*TO* 8). To identify ways and means for providing better articulation between and among all levels of allied health and nursing education programs (*TO* 4).
IV ADMINISTRATION AND ADMINISTRATIVE COSTS	To prepare a plan for more effective relationships between AACJC and health associations (*TO* 7). To identify the problem created by procedures followed in accreditation, certification, and licensure processes as they relate to program quality, articulation between and among various levels of educational institutions, and rights and responsibilities of the educational institution as client in these processes (*TO* 9). To review, "translate," and disseminate information on comprehensive cost analysis systems appropriate to allied health and nursing education programs and on patterns of financing (*TO* 12).

V MANPOWER INFORMATION SUBGROUP A	To develop a plan for (a) identifying major manpower intelligence studies, (b) establishing liaison with these studies, (c) providing input to these studies which would enhance their utility to community and junior college allied health and nursing education program developers, and (d) providing a manpower intelligence data analysis consultation service to community and junior colleges. To develop a plan for establishing a series of regionally-based information systems for collecting, processing, and distributing data required for planning and programming of community college curricula in allied health and nursing education. To develop a plan for generating and regularly updating estimates of intermediate and long-range health industry trends, especially interpreted for their impact upon and significance to allied health and nursing education programming (*TO* 1).
SUBGROUP B	To develop a plan for identifying the (a) specific community colleges with the potential for emerging health care education programs and (b) essential criteria for involvement in emerging health care programs. To develop a plan for guiding community colleges into effective roles in emerging health care planning programs (*TO* 2).

APPENDIX C

national professional associations conferences: participants

CHICAGO, ILLINOIS
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Margaret Ryan, Assistant Secretary
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American Dental Hygienists Association
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Mary J. Kolar, Educational Director

American Dietetic Association
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Chicago, Illinois 60611
Robert M. Crum, Executive Director
Maxine Hart, Ph.D., Assistant Executive Director, Education

American Hospital Association
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E. Martin Egelston, Assistant Director
Bureau of Manpower and Education

American Medical Association
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John J. Fauser, Ph.D., Assistant Director
Don Lehmkuhl, Assistant Director
Phillip O. McCarthy, M.S., Research Associate
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WASHINGTON, D.C.
February 27, 1974

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National Commission on Accrediting
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National Health Council
Levitte Mendel, Associate Director

Veterans Administration
Martha L. Phillips, Director, Manpower
Grants Service

APPENDIX D

regional workshops: dates, location, chairman

REGION AND DATES	LOCATION	CHAIRMAN
Mid-Atlantic Nov. 12-13 1973	Dupont Plaza Hotel Washington, D.C.	Moses Koch, President Monroe Community College
New England Nov. 26-27 1973	Sheraton-Boston Hotel Boston, Massachusetts	William Dwyer, President Massachusetts Board of Regional Community Colleges
North Central Dec. 10-11 1973	Regency Hyatt O'Hare Chicago, Illinois	Thomas F. Zimmerman, Dean, School of Associated Medical Sciences, University of Illinois
New York City Dec. 14 1973	Commodore Hotel New York, N.Y.	Helen Burnside, Associate Provost for the Health Sciences, State University of New York
Southern Jan. 7-8 1974	Hyatt Regency Hotel Atlanta, Georgia	Joseph Hamburg, Dean, College of Allied Health Professions, University of Kentucky
Western Jan. 17-18 1974	St.Francis Hotel San Francisco, California	Florence S. Cromwell, Adjunct Associate Professor, Department of Occupational Therapy, University of Southern California
Mountain States Jan. 21-22 1974	Brown Palace Hotel Denver, Colorado	Elizabeth E. Kerr, Director Program in Health Occupations Education, The University of Iowa

TABLE III: Representation of the 155 Participants at Seven SAHE Regional Workshops

REGION	Sex		Minority	INSTITUTION				POSITION			Consortia	SPECIALITY					
	M	F		Community College	University	Hospital	State Councils/ Depts	President/Vice President	Dean/Cordinator/ Director	Department Chairman		Allied Health	Nurse	Physician	P.A.	Dental	Teacher Preparation
Mid-Atlantic	16	7	2	13	6	1	3	3	10	7	5	16	1	0	2	1	1
New England	9	5	1	10	2	1	2	2	9	1	3	7	1	1	1	2	0
North Central	16	12	0	13	10	0	2	2	21	4	6	17	4	0	2	2	0
New York	18	12	5	10	9	5	4	3	17	1	5	13	2	2	3	0	0
Southern	14	6	0	12	8	0	1	3	16	1	5	13	3	3	3	0	0
Western	7	16	3	15	5	2	3	0	13	7	6	18	7	1	0	0	2
Mountain States	10	7	2	6	7	1	5	1	14	0	5	13	5	0	0	1	1
Total representation	90	65	13*	79	47	10	20	14	100	21	35	97	23	7	11	6	4
Total participants	155		* Of the 20 minority invitations 7 were unable to attend														

APPENDIX E

regional workshops: participants

(* *Indicates member of National Advisory Committee*)

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Washington, D.C.
November 12-13, 1973

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NEW ENGLAND
Boston, Massachusetts
November 26-27, 1973

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Charlestown, Massachusetts 02129

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Chicago, Illinois
December 10-11, 1973

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APPENDIX F

regional workshops: guidelines for participants

Prior to arrival at the workshop, participants are requested to review these procedural guidelines and the attached list of SAHE objectives, grouped within six topical categories. These materials will give each person an opportunity to assemble pertinent information to share with others at the workshop. Attached also is a tentative assignment sheet placing each participant in one of the discussion groups. If anyone prefers to join a group other than the one presently assigned, a change can be made at the first meeting.

OVERALL SAHE PROJECT OBJECTIVE

The overall SAHE project objectives is the development of a system for the continuing identification and solution of major problems associated with the national effort to meet allied health and nursing manpower requirements, particularly as they relate to community and junior colleges.

REGIONAL WORKSHOP OBJECTIVES

The objectives for the regional workshop are twofold:

1. To determine the role that community and junior colleges can and should fulfill in meeting the local allied health and nursing manpower requirements.

2. To determine the role that the American Association of Community and Junior Colleges (AACJC) can fulfill in assisting its membership institutions in their efforts to meet the regional health manpower requirements.

GENERAL PROCEDURES

The workshop will have both plenary sessions and small group working sessions. There will be three plenary sessions, and each will permit an exchange of ideas among the representatives of the various interest and programs in the region. At the first session, the SAHE staff will give an overview of the project and discuss the objectives within each of the six Objective Groups. At the second and third sessions, the recorders will present group reports for discussion by all participants.

The small group working sessions will permit in-depth discussions of specific objectives within the assigned category. Each group will name a recorder who will assume responsibility for preparing a written report of the group's findings and submit this report to the SAHE staff at the conclusion of the conference. (Groups may wish to name a recorder for each objective within the category.) To facilitate the preparation of the reports, there will be worksheets available; some groups may elect to develop their own outlines for the report.

SPECIFIC GUIDELINES

FIRST DAY

1:00 p.m. *Opening Session:* Overview of the SAHE project and presentation of the objectives as they relate to the needs of allied health and nursing education programs in the community and junior colleges.
Moderator: SAHE Regional Workshop Chairman

At this session, participants will determine if:

1. The needs set forth in the original AACJC project proposal are applicable in the community and junior colleges of the region.

2. There are additional needs of allied health and nursing education in the community and junior colleges of the region.

3. The SAHE objectives are appropriate for meeting the needs of allied health and nursing education in the community and junior colleges of the region.

2:30 p.m *First Concurrent Group Work Sessions:* Needs and problems of allied health and nursing education programs in the region. The purpose of this session is to:

1. Evaluate the specific objectives (previously assigned) to determine how well they relate to the needs and problems in allied health and nursing education in the region.

2. Identify problems that may present barriers to meeting the needs in allied health and nursing education in the region.

8:30 p m. *Plenary Session:* Preliminary reports by group recorders.
Moderator: SAHE Project Director

This session will provide for an exchange of ideas among conference participants to insure that the final SAHE project report will reflect the aggregate thinking of the regional workshop.

Group recorders will be allocated 10 minutes each for presentation; an additional five minutes will be allowed for input by all other workshop participants. (In the interest of meeting the time schedule, group reports at this session should be confined to the present needs and to the issues and problems in community and junior colleges in allied health and nursing education.)

SECOND DAY

9:00 a.m. *Plenary Session:* Conference appraisal.
Moderator: SAHE Regional Workshop Chairman

9:30 a.m. *Second Concurrent Group Work Sessions:* Proposed strategies and resources for meeting the needs of community and junior colleges in allied health and nursing education programs in the region.

At this meeting, each group is requested to:

1. Reassess the needs and problems identified in the first group work session and include any additional ideas contributed by the conferees during the previous plenary session.

2. Develop strategy recommendations and outline a plan or plans for their implementation.

3. Prepare a list of regional resources that might be employed in implementing the proposed strategy plan. (In the compilation of this list be specific: avoid abbreviations and acronyms and include full names and addresses of projects and persons. This will help the SAHE staff in any follow-up for further information.)

1:30 p.m. *Plenary Session:* Final reports by group recorders and recommendations for sequence of priorities for SAHE Objective Groups.
Moderator: SAHE Project Director

In order to insure completion of the agenda, each work group will be allocated a maximum of 20 minutes to include both the group recorder's report and discussion of the report. (Recorders should limit their formal presentations to 10 minutes.) At the conclusion of this session the recorders will give their written reports to the SAHE staff. Participants will also hand in the prepared form which will show their recommendations for SAHE Objective Group sequence.

5:00 p.m. *Adjournment*

APPENDIX G

determination of priority sequence for Sahe objectives

At all SAHE conferences (with the exception of the Mid-Atlantic Workshop) participants were asked to assign a priority to each Objective Group, with "1" as an indication of highest preference. The results of the priority "votes" are contained in Tables IV-IX within this part of the appendix.

Table IV shows the votes obtained from sixteen members of the SAHE National Advisory Committee. The diversity of opinion among the members of the Committee is apparent in the spread of choices throughout the grid.

TABLE IV: Summary of the "Votes" for Each Priority for the Five Objective Groups as Assigned by the SAHE National Advisory Committee

	OBJECTIVE GROUP	PRIORITY VOTES					TOTAL
		1	2	3	4	5	
I	Student Related Issues	0	1	5	5	5	16
II	Curriculum Development and Quality of Instruction	6	6	0	3	1	16
III	Articulation, Teacher Preparation, and Continuing Education	1	2	6	4	3	16
IV	Administration and Administrative Costs	1	6	2	2	5	16
V	Manpower Information	8	1	3	2	2	16
	TOTAL	16	16	16	16	16	80

In order to determine a priority sequence based upon these data, a Weighted Group Priority Value (WG) formula for the Objective Groups was derived as follows:

WG = N x P

WG = Weighted Group Priority Value
N = Number of votes for each priority
P = Priority assigned

Table V shows the WG calculated from the National Advisory Committee data. Table VI shows the sequence of Objective Groups as determined from these values.

TABLE V: Determination of Weighted Group Priority Values from SAHE National Advisory Committee Data (N = 16)

OBJECTIVE GROUP	WEIGHTED GROUP PRIORITY VALUES										TOTAL GROUP PRIORITY
	1		2		3		4		5		
	N	W	N	W	N	W	N	W	N	W	
I	0	0	1	2	5	15	5	20	5	25	62
II	6	6	6	12	0	0	3	12	1	5	35
III	1	1	2	4	6	18	4	16	3	15	54
IV	1	1	6	12	2	6	2	8	5	25	52
V	8	8	1	2	3	9	2	8	2	10	37
TOTAL	16	16	16	32	16	48	16	64	16	80	240

TABLE VI: Sequence of Objective Groups as Determined by Total Weighted Priority Derived from SAHE National Advisory Committee Data

OBJECTIVE GROUP		WEIGHTED GROUP PRIORITY	INCREASE GROUP PRIORITY	PRIORITY SEQUENCE
II	Curriculum Development and Quality of Instruction	35	—	1
V	Manpower Information	37	2	2
IV	Administration and Administrative Costs	52	15	3
III	Articulation, Teacher Preparation, and Continuing Education	54	2	4
I	Student Related Issues	62	8	5
TOTAL		240	27	

Had there been unanimity of opinion among the voting members of the National Advisory Committee, all sixteen would have voted for the same priority in each Objective Group. The WG's would then have been 16, 32, 48, 64, and 80. They might have been arranged in any sequence, but the spread from highest to lowest WG would total 64 units. If there had been a total diversity of opinion, all Objective Groups would have received equal WG's, and the range from highest to lowest priority would have been zero. Therefore, the narrower the spread from the highest to the lowest WG, the wider the diversity of opinion within the group. Table VI shows the spread from the National Advisory Committee's highest priority (WG = 35) to the lowest priority (WG = 62) to be 27 units in a possible field of 64. This indicates a diversity of opinion among the sixteen voters in the assignment of priorities to the Objective Groups.

In addition to assigning priorities to the Objective Groups, the National Advisory Committee members were asked to indicate a priority for the objectives *within* each Group, again with "1" as an indication of highest preference. In order to determine this priority sequence a Weighted Objective Priority Value (WO) formula was derived as follows:

$$WO = WG \times N \times P$$

WO = Weighted Objective Priority Value
WG = Weighted Group Priority Value
N = Number of votes for priorities within each Group
P = Priority assigned

Table VII shows the sequence of the 16 project objectives based upon the WO's. The two objectives with the highest priorities are stated here:

1st priority: To establish a dynamic system or clearinghouse for the identification of resources for planning, implementing, upgrading, and increasing cost/effectiveness of allied health and nursing education curricula.

2nd priority: To develop a plan for identifying the (a) specific community colleges with the potential for emerging health care education programs and (b) essential criteria for involvement in emerging health care programs.

A summary of the priority data obtained for all regional workshops (excepting Mid-Atlantic) is shown in Tables VIII and IX. The distribution of Weighted Group Priority Values among the SAHE Objective Groups appears in Table VIII. The sequence of the Objective Groups based upon the total WG's is shown in Table IX.

The data from the votes at the six regional workshops are similar to those obtained from the first National Advisory Committee meeting. If there had been total unanimity of opinion, the spread from highest to lowest priority would have been from 110 to 660—a range of 550 units. As shown in Table IX, there is a spread of only 134 units from highest priority (WG = 314) to lowest priority (WG = 448), which indicates wide diversity of priority thinking among regional conference participants. However, when all data are considered, objective Group V (Manpower Information) emerged with the highest priority for all conference votes. This indicates a consensus among the participants that there is a great need for a national informational clearinghouse to identify resources for planning, implementing, and updating present curricula in allied health and nursing education.

TABLE VII: Sequence of 16 Objectives Based on Weighted Objective Priority Values Derived from 16 Questionnaires from SAHE National Advisory Committee

NO.	OBJECTIVE TITLE SHORTENED[1]	WG	NxP	WO	PRIORITY
5	Clearinghouse for resource information	35	22	770	1
16	Emerging health care systems	37	21	777	2
17	Role of community colleges in comprehensive health care planning	37	28	1036	3
13	Identification of manpower needs	37	30	1110	4
11	Problems related to accreditation, certification, and licensure	52	22	1114	5
15	Regional based information systems	37	31	1147	6
14	Determination of health industry trends	37	32	1184	7
9	Mobilizing potential of community colleges for continuing education	35	34	1190	8
1	Improving recruiting information system	62	20	1240	9
8	Teacher preparation	54	24	1296[2]	10
7	Articulation	54	24	1296[2]	11
4&6	Improved clinical training	35	40	1400	12
12	Cost analysis system	52	32	1664	13
10	AACJC with health associations and agencies	52	41	2132	14
2	Minorities	62	37	2257	15
3	Assess need for traineeships	62	40	2480	16

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[1] For full statement of objective refer to objective number in column to the left and then to corresponding arabic number in list of objectives in Chapter 1.

[2] Figures distorted downward, that is, toward higher priority because there are only two objectives within the group and all other categories have three objectives.

TABLE VIII: Distribution of Weighted Group Priority Values (WG) Among SAHE Objective Groups as Determined at Six Regional Workshops (N-110)

OBJECTIVE GROUP	NEW ENGLAND	NORTH CENTRAL	NEW YORK CITY	SOUTHERN	WESTERN	MOUNTAIN STATES	WG TOTAL
I	55	96	68	82	96	51	448
II	26	56	63	64	68	41	318
III	39	77	80	66	75	54	391
IV	39	82	97	67	102	55	442
V	25	82	45	48	73	41	314
VI	48	69	53	76	69	73	388
TOTAL	232	462	406	403	483	315	2301

TABLE IX: Sequence of SAHE Objective Groups as Determined by Weighted Group Priority Values (WG) Obtained at Six Regional Workshops

OBJECTIVE GROUP		WG	INCREASE	PRIORITY
V	Manpower Information	314	—	1
II	Curriculum Development and Quality of Instruction	318	4	2
VI	Emerging Health Care Programs	388	70	3
III	Articulation, Teacher Preparation, and Continuing Education	391	3	4
IV	Administration and Administrative Costs	442	51	5
I	Student Related Issues	448	6	6
TOTAL		2301	134	

APPENDIX H

Sahe questionnaire

AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

Study of Allied Health Education (SAHE)

CLINICAL INSTRUCTION, CONTINUING EDUCATION AND CONSUMER HEALTH EDUCATION IN POSTSECONDARY ALLIED HEALTH AND NURSING EDUCATION PROGRAMS

INSTITUTION (Please Print)

STREET ADDRESS

CITY STATE ZIP CODE

NAME OF RESPONDER TITLE

PART I: CLINICAL INSTRUCTION – to determine the extent and nature of current practices in *clinical instruction* in existing community and junior college programs for the training of allied health and nursing personnel during the academic year 1972-1973.

PART II: CONTINUING EDUCATION – to determine the nature and extent of existing continuing education courses in allied health and nursing education in community and junior colleges during the academic year 1972-1973.

For purposes of this questionnaire, *continuing education* includes all short-term courses designed for allied health and nursing personnel to maintain minimum competency levels, to instruct in new techniques and approaches, to develop and to maintain communication, supervisory, and/or management skills.

PART III: CONSUMER HEALTH EDUCATION – to determine the nature and extent of consumer health education courses, and/or special programs and services in community and junior colleges offered during the academic year 1972-1973.

For purposes of this questionnaire, *consumer health education* includes all courses and/or special programs designed for those who are well in order to assist them in the maintenance of good health, to prevent illnesses and injuries, and to provide guidance for entry, referral to, and use of health care services.

STUDY OF ALLIED HEALTH EDUCATION (SAHE)

In the space provided below, please write in the titles of your health related career programs (allied health, dental auxiliaries, nursing) and indicate the length in months and the number of full time (FT) and part time (PT) students who graduated in academic year 1972-1973.

CLINICAL SETTINGS

Please use **one** line for **each** clinical setting and then put a check mark in all appropriate columns on the check list provided to the right.

TYPE OF CLINICAL SETTING

Hospital
Group Practice Centers – Physicians/Dentists/ HMOś
Private Physician/Dentists' Offices
Health Care in the Home
Nursing Homes/Extended Care Facilities,
separate from hospital
Community Health Centers, including mental health
Other (please specify)

ALLIED HEALTH AND NURSING EDUCATION PROGRAMS

TYPE OF PROGRAM	Program Length in Months	Graduates 72-73		
		FT	PT	

PART I: CLINICAL INSTRUCTION in Postsecondary Allied Health and Nursing Education Programs

NOTE: FOR ADDITIONAL SPACE PLEASE USE REVERSE SIDE OF THIS PAGE TO COMPLETE PART I

Weeks in Each Clinical Setting	CHECK LIST FOR INSTRUCTION IN EACH CLINICAL SETTING					
	Check Responsibility for Clinical Supervision		Check Responsibility for			
			Selection of Student Learning Experiences		Evaluation of Student Performance	
	College Faculty	Service Agency Personnel	College Faculty	Service Agency Personnel	College Faculty	Service Agency Personnel

STUDY OF ALLIED HEALTH EDUCATION (SAHE)

LIST OF SHORT-TERM CONTINUING EDUCATION COURSES	Length in Weeks	Number of Participants 72-73		CREDIT		
				College		CEUs[1] If Any
		Enrolled	Completed	Yes	No	

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[1] Continuing Education Units

[2] If jointly sponsored with local health services/agencies, please specify name(s) of the cooperating organization(s).

PART II: CONTINUING EDUCATION – to determine the nature and extent of short-term continuing education courses in allied health and nursing education in community and junior colleges during the academic year 1972-1973 (see page 1 for definition of continuing education).

	SPONSORSHIP	TITLE OR POSITION OF COURSE COORDINATOR
College Only (check)	Joint[2] (Please specify)	

STUDY OF ALLIED HEALTH EDUCATION (SAHE)

PART III: CONSUMER HEALTH EDUCATION – to determine the nature and extent of consumer health education courses and/or special programs and services in community and junior colleges during the academic year 1972-1973 (see page 1 for definition of consumer health education).

SUBJECT AREA	Lenth in Hours	College Credit		Number Served[1]	SPONSORSHIP	
		Yes	No		College Only	Joint[2] (Please specify)
Alcoholism						
Anti-Smoking						
Cancer						
Cardiopulmonary Resuscitation						
Diabetes						
Drug Abuse						
Emergency Medical Care						
Family Planning						
Health Information and Counselling: entry and use of health care services						
Heart Disease						
Mental Health						
Stroke						
Venereal Disease						
Weight Control						
Others (Please specify)						

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[1] Please estimate number of individuals served during the academic year 1972-1973.

[2] If jointly sponsored with local health services/agencies, please specify names of the cooperating organizations.

TABLE X: SAHE Questionnaire Summary by Locality

LOCALITY	QUERIES			COLLEGES				PART II		PART III	
	Sent	Returned	Percent Response	No Programs	Part I Clinical Instruction	Part II Continuing Education	Part III Consumer Health Education	Continuing Education Courses	Continuing Education Students	Consumer Health Education Offerings	Consumer Health Education Individuals Served
Alabama	23	13	57	4	7	2	3	3	129	5	348
Alaska	9	3	33	0	1	2	1	8	174	5	
Arizona	14	12	86	1	11	8	3	23	620	10	1,164
Arkansas	10	4	40	3	1	1	1	3	87	3	128
California	104	68	65	6	60	37	24	143	7,324	64	10,978
Colorado	16	8	50	0	8	5	3	15	937	7	283
Connecticut	22	11	50	5	5	3	0	4	190	0	0
Delaware	6	4	67	0	4	1	0	1	9	0	0
D. C.	4	1	25	1	0	0	0	0	0	0	0
Florida	32	20	63	2	15	11	11	62	3,736	21	3,853
Georgia	24	15	63	7	7	3	4	31	1,017	11	1,557
Hawaii	7	3	43	1	2	1	1	2	76	1	25
Idaho	4	1	25	0	1	0	1	0	0	1	30
Illinois	56	33	59	5	28	18	14	67	1,948	51	10,540
Indiana	4	2	50	1	1	0	0	0	0	0	0
Iowa	28	12	43	1	11	9	8	106	6,652	42	3,525
Kansas	25	17	68	3	11	2	6	4	136	12	817
Kentucky	21	15	71	2	12	5	7	10	532	28	1,431
Louisiana	7	1	14	0	1	0	1	0	0	1	27
Maine	6	6	100	1	4	2	2	8	147	12	947
Maryland	20	12	60	3	8	4	6	6	188	21	16,754
Massachusetts	39	21	54	7	14	5	2	18	543	2	110
Michigan	36	19	53	2	17	14	11	43	1,213	34	2,171
Minnesota	23	14	61	2	11	5	7	14	505	14	2,167
Mississippi	25	13	52	3	10	4	4	8	197	9	1,122
Missouri	20	9	45	2	7	3	2	15	1,486	3	302
Montana	3	2	67	1	1	0	0	0	0	0	0
Nebraska	14	7	50	1	5	5	3	9	346	8	330
Nevada	3	3	100	1	2	1	1	2	39	1	30
New Hampshire	10	5	50	2	3	0	1	0	0	13	468

TABLE X: SAHE Questionnaire Summary by Locality (cont.)

LOCALITY	QUERIES			COLLEGES				PART II		PART III	
	Sent	Returned	Percent Response	No Programs	Part I Clinical Instruction	Part II Continuing Education	Part III Consumer Health Education	Continuing Education Courses	Continuing Education Students	Consumer Health Education Offerings	Consumer Health Education Individuals Served
New Jersey	23	11	48	4	7	3	0	8	156	0	0
New Mexico	12	7	58	3	3	1	1	1	28	1	20
New York	60	36	60	8	26	15	14	54	2,173	41	10,983
North Carolina	67	29	43	3	25	27	17	153	8,509	57	4,571
North Dakota	5	1	20	1	0	0	0	0	0	0	0
Ohio	44	13	30	7	6	7	4	21	986	12	947
Oklahoma	19	7	37	2	5	1	3	1	23	6	2,088
Oregon	16	7	44	1	6	9	8	26	1,423	18	2,049
Pennsylvania	48	10	21	3	6	3	0	9	236	0	0
Rhode Island	2	2	100	0	1	1	1	4	156	2	800
South Carolina	31	14	45	1	10	6	6	23	1,797	13	1,362
South Dakota	5	2	40	0	1	1	2	9	595	5	380
Tennessee	19	14	74	6	8	2	2	4	251	2	125
Texas	65	35	54	5	29	13	9	46	2,287	41	23,112
Utah	5	1	20	0	1	1	1	1	9	2	306
Vermont	7	4	57	1	1	1	2	1	50	3	139
Virginia	30	25	83	7	10	6	9	10	861	21	2,730
Washington	27	17	63	1	8	12	10	64	1,925	29	5,530
West Virginia	8	4	50	0	4	0	1	0	0	1	40
Wisconsin	31	17	55	6	6	3	5	49	3,112	9	1,650
Wyoming	7	3	43	1	1	3	2	0	0	2	101
Amer Samoa	1	0	0								
Canal Zone	1	0	0								
Puerto Rico	17	5	29	3	2	1	1	1	29	1	200
Total U. S.	1,165	618	53	130	434	269	225	1,090	52,837	645	115,649
Canada	10	8	80	1	7	2	1	8	315	0	0
Grand Total	1,175	626 −12* 614	53 52	131	441	271	226	1,098	53,152	645	115,649

*Unidentified and therefore not included.

TABLE XI: Number of Clinical Instruction Programs and Graduates (1972-1973) Reported in 22 Curricula, Each of Which Was Recorded by More Than Five of the 614 Colleges Responding to the SAHE Questionnaire.

CURRICULUM TITLE	PROGRAMS			NUMBER OF GRADUATES 72-73
	Graduations in 72-73	Graduations after 72-73	Total Programs	
Clinical Laboratory Assisting	13	2	15	167
Dental Assisting	92	4	96	1,963
Dental Hygienist	48	6	54	1,202
Dental Laboratory Technology	13	0	13	188
Dietetic Technology	3	6	9	25
Emergency Medical Technology	12	9	21	901
Medical Assisting	17	0	17	353
Medical Laboratory Technology	76	23	99	1,245
Medical Office Assisting	38	6	44	782
Medical Records Technology	29	5	34	375
Medical Secretary	16	1	17	124
Mental Health Technician	41	10	51	804
Nursing Services				
Associate Degree Nursing	227	46	273	11,962
Licensed Practical Nursing	206	14	220	8,396
Nurse's Aide	55	2	57	3,470
Occupational Therapy Assistant	15	5	20	247
Operating Room Technology	33	9	42	430
Physical Therapy Assisting	12	6	18	175
Radioisotope Technician	6	1	7	44
Radiological Technology	72	19	91	1,224
Respiratory Therapy	57	19	76	908
Ward Clerk	8	0	8	112
TOTAL	1,089	193	1,282	35,108

TABLE XII: Number of Clinical Instruction Programs and Graduates (1972-1973) Reported in 54 Curricula, Each of Which Was Recorded by Five or Fewer of the 614 Colleges Responding to the SAHE Questionnaire.

CURRICULUM TITLE	PROGRAMS			NUMBER OF GRADUATES 72-73
	Graduations in 72-73	Graduations after 72-73	Total Programs	
Anaplastology	1	0	1	2
Animal Care Technology	1	1	2	10
Biomedical Engineering Technology	1	1	2	8
Cardiopulmonary Technology	2	0	2	18
Cardiovasculary Technology	1	0	1	17
Child Care	1	1	2	9
Clinical Clerk	1	0	1	15
Community Health Worker	1	1	2	15
Cytotechnology	0	1	1	0
Dental X-Ray	0	1	1	0
Early Childhood Assistant	1	0	1	49
Electrocardiography	0	2	2	0
Electro-Diagnostic Technician (EKG-EEG)	0	1	1	0
Electron Microscopy Technician	1	0	1	10
Environmental Health	0	1	1	0
Environmental Technology	2	1	3	14
Geriatric Aide	1	0	1	60
Gerontology	0	1	1	0
Health Assistance	1	0	1	2
Health Care Management	1	1	2	1
Health Record Clerk	1	0	1	60
Health Service Aide	1	0	1	23
Health Service Management	0	1	1	0
Histology Technician	1	0	1	6
Histology/Cytology Technician	1	0	1	1

TABLE XII (cont.)

CURRICULUM TITLE	PROGRAMS			NUMBER OF GRADUATES 72-73
	Graduations in 72-73	Graduations after 72-73	Total Programs	
Histotechnology	1	1	2	7
Home Health Aide	2	0	2	36
Hospital Pharmacy Technology	0	1	1	0
Human Services	0	1	1	0
Medical Insurance Clerk	1	0	1	14
Medical Transcription	0	2	2	0
Medical Transcriber	0	1	1	0
Medication Technician	0	1	1	0
Mental Retardation	1	1	2	4
Nephrology Technician	2	0	2	32
Nursing Home Administration	2	3	5	15
Ophthalmic Dispensing	2	0	2	83
Ophthalmic Optics	1	0	1	13
Opticianry	1	0	1	16
Optometric Assisting	2	0	2	14
Optometric Technician	3	2	5	23
Orthopaedic Physician Assistant	2	0	2	16
Orthoptics	0	1	1	0
Orthoptics/Prosthetics Technology	0	1	1	0
Podiatric Assistant	0	1	1	0
Public Health Technology	1	0	1	24
Radiologic Electronic Technician	1	0	1	1
Rehabilitation Assistant	1	0	1	21
Social Service Technician	1	0	1	11
Therapeutic Recreation	0	2	2	0
Unit Clerk	2	0	2	59
Unit Manager	1	0	1	3
Urologic Technology	0	1	1	0
Ward Secretary	1	0	1	36
TOTAL	48	33	81	748

TABLE XIII: Number of Clinical Settings Reported for Five Curricula Selected to Represent Programs Emphasizing Primary and Ambulatory Care

CURRICULUM TITLE	NUMBER OF CLINICAL SETTINGS REPORTED										
	One	More Than One Clinical Setting									Total Programs
		Two	Three	Four	Five	Six	Seven	Eight	Nine	Total	
Associate Degree Nursing	87	49	46	45	23	11	9	2	1	186	273
Practical Nursing	103	73	22	17	4	1	0	0	0	117	220
Nurse's Aide	24	30	3	0	0	0	0	0	0	33	57
Dental Assisting	46	39	8	3	0	0	0	0	0	50	96
Mental Health Technician	16	18	7	2	5	1	1	1	0	35	51
TOTAL	276	209	86	67	32	13	10	3	1	421	697

TABLE XIV: Frequency of Occurrence of Each Clinical Setting When Two or More Settings Were Reported for a Single Program in Five Curricula Selected to Represent Programs Emphasizing Primary and Ambulatory Care

CLINICAL SETTING	NUMBER OF PROGRAMS						PERCENT OF TOTAL SETTINGS
	Associate Degree Nursing	Practical Nursing	Nurse's Aide	Dental Assisting	Mental Health Technician	Total	
Clinical Simulation Laboratories	0	1	0	0	0	1	0
Clinics	29	7	0	28	5	69	6
Community Health Centers	113	26	0	4	27	170	13
Correctional Agencies	1	0	0	1	6	8	1
Emergency Rescue Units	0	1	0	0	0	1	0
Group Practice Centers	25	6	1	9	2	43	3
Hospitals	186	115	31	21	26	379	30
Industrial Settings	7	2	0	3	1	13	1
Nursery Schools	32	11	0	0	4	47	4
Nursing Homes	118	96	32	0	9	255	20
Private Homes	22	3	2	0	1	28	2
Private Offices	91	18	0	45	2	156	12
Public Health Departments	21	7	0	1	1	30	2
Schools	19	3	0	2	8	32	3
Social Service Agencies	3	2	0	0	11	16	1
Specialized Institutes	14	8	1	0	8	31	2
TOTAL FREQUENCIES	681	306	67	114	111	1279	100
NUMBER OF PROGRAMS	186	117	33	50	35	421	

TABLE XV: Extent of Involvement of Service Agency Personnel in Clinical Supervision, Selection of Learning Experiences, and Evaluation.

CURRICULUM TITLE	CLINICAL SUPERVISION							SELECTION OF LEARNING EXPERIENCES						EVALUATION OF STUDENT PERFORMANCE					
	Total Number of	College Only		Agency Personnel Only		Shared		College Only		Agency Personnel Only		Shared		College Only		Agency Personnel Only		Shared	
	Clinical Settings	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Associate Degree Nursing	480	443	93	11	2	26	5	435	91	7	1	38	8	446	93	4	1	30	6
Dental Assisting	146	60	41	19	13	67	46	97	66	6	4	43	30	60	41	6	4	80	55
Medical Laboratory Technology	101	41	40	16	16	44	44	56	56	6	6	39	38	36	36	12	12	53	52
Radiologic Technology	96	23	24	15	16	58	60	47	49	10	10	39	41	26	27	11	11	59	62
TOTAL	823	567	69	61	7	195	24	635	77	29	4	159	19	568	69	33	4	222	27

TABLE XVI. Continuing Education Courses and Consumer Health Education Offerings Reported for the Academic Year 1972-1973 Listed Alphabetically by Location and by Community College.

The following lengthy table which continues for 119 pages reproduces the results obtained from Part II (Continuing Education) and Part III (Consumer Health Education) of the SAHE Questionnaire. It is hoped that the tabulation arrangement will facilitate interchanges of ideas, instructional materials, and program plans among community college allied health and nursing personnel.

The continuing education section cites the courses offered, their length (usually indicated in weeks), the number of students involved, and the credit status for each course. For the consumer health education offerings, the table shows the length (in hours), the number of individuals served, and whether or not academic credit is granted.

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
ALABAMA								
George Corley Wallace State Community College Selma 36701								
Emergency medical technician	14	25		x	First aid	30	40	x
Nurse's aide	40	44			Health and safety	50	18	x
Lawson State Community College Birmingham 35221								
--					Drug abuse	n/r	150	
					Weight control	n/r	50	
Lurleen B. Wallace State Junior College Andalusia 36420								
Emergency medical technician	10	60		x	Weight control	30	90	
ALASKA								
Anchorage Community College Anchorage 99504								

Administration medications	5	18	x		Community Services				
Bacteriology seminar	1da	20			Blood pressures for American Heart Assn.	4da			
Bacteriology workshop	1	15	x		Children's Dental Health Program with Anchorage Dental Society	2wk			
Coagulation workshop	1	15			Monitoring First Aid Stations in Walk for Hope Program	1da			
Management seminar	1	25	x		Oral cancer screening with Anchorage Dental Society	12			
Nutrition/Dental assistant	15hr	27	x		Urine tests for Diabetes Association	3da			
Preventive dentistry	15	27							
Sitka Community College Sitka 99835									
Intensive coronary care	8	27							
ARIZONA									
Glendale Community College Glendale 85302									
Gerontology	16	20	x						
Leadership techniques	16	25	x						
Maricopa Technical Community College Phoenix 85004									
Dental assisting (radiography)	3da	52		x	Oral hygiene patient education	7	158		

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
ARIZONA (continued)								
Mesa Community College Mesa 85202								
Cardiac nursing I	16	50	x					
Cardiac nursing II	16	50	x					
Gerontology	16	35	x					
Interaction in nursing	16	25	x					
Leadership for nurses	16	25	x					
RN refresher	16	24	x					
Mohave Community College Kingman 86401								
Child development and family relations	n/r	10	x		Expectant parents	12	12	
First aid and safety	n/r	59	x					
Medical terminology	n/r	12	x					
RN refresher	n/r	14	x					
Phoenix College Phoenix 85029								
Biomedical chemistry	16	15	x					
Leadership techniques	16	18	x					
Modern concepts of cardiac nursing	16	18	x					

New techniques in nursing	8	26	x					
Nursing role in rehabilitation	16	10	x					
Pharmacology for nurses	16	17	x					
Pima Community College Tucson 85709								
Nurse refresher	16	15	x	x	Emergency medical care	114	152	x
Radiography	16	16	x	x				
Pinal County Community College District Coolidge 85228								
Allied health	32	65	x	x	Family planning	32wk		
Day care and Head Start	32	44	x	x	First aid	10	75	
					Red cross	16	60	x
					Red cross (certificate)	16	250	
					Weight control	45	122	x
					Community Services			
					Aging	36	85	
					Alcoholism (open 24hr/day)	n/r	458	
					Drug abuse (open 24hr/day)	n/r	50	
Yavapai College Prescott 86301								
Pharmacology for nurses	5	19	x	x				

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
ARKANSAS								
Phillips County Community College Helena 72342								
Emergency medical technician	80hr	32	x		Emergency medical care	16	32	
Management and supervision	50hr	30			Family planning	40	16	
Medical receptionist	16	25	x	x	Mental health	16	80	
CALIFORNIA								
American River College Sacramento 95841								
Psychosocial approaches to convalescent nursing	8	20						
Antelope Valley College Lancaster 93534								
Emergency medical technician	18	45	x					
Nurse's aide (outreach)	6	17	x					
Butte College Durham 95938								
Medical terminology I	12	95	x					

Medical terminology II	12	18	x					
Pharmacology for nursing	12	28	x					
Pharmacology for respiratory therapists	12	25	x					
Pulmonary function testing	12	24	x					
Cabrillo Community College Aptos 95003								
Cardiac care	16	40	x					
Emergency room care	16	40	x					
Canada College Redwood City 94061								
--					Family planning	8	200	
					Health information and counseling	6½	250	
Cerro Coso Community College Ridgecrest 93555								
--					Advanced first aid and emergency care	72	41	x
					Principles of health education	54	136	x
					Standard first aid	10	82	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
CALIFORNIA (continued)								
Chabot College Hayward 94545								
Basic coronary care	11	30	x					
Emergency training	11	48	x					
Medical Spanish	11	17	x					
Neurologic nursing	11	37	x					
Orientation to coronary care	11	172	x					
RN refresher	11	30	x					
Respiratory disease care	11	114	x					
Trends in nursing	11	32	x					
Chafey Community College Alta Loma 91701								
Quality nursing care - coronary care	13	83	x					
Radiologic technology review	6	12	x					
City College of San Francisco San Francisco 94112								
Dental laboratory technology	18	40	x					

College of the Canyons Valencia 91355								
Advanced coronary care	12	14	x					
Basic coronary care	12	30	x					
College of the Desert Palm Desert 92260								
Electronics for nurses	18	12	x		Cardiopulmonary resuscitation	48	24	
Emergency medical technician	18	40	x		Emergency medical care	90	40	x
Medical terminology	18	50	x					
Pharmacology for nurses	18	20	x					
College of the Redwoods Eureka 95501								
Anatomy and physiology for medical assts.	11	6	x		Cardiopulmonary resuscitation	8	50	x
Death and dying	2da	150	x		Diabetes	10	25	x
Intensive care - nursing	11	21	x		Emergency medical care	80	150	x
Medical office procedures	11	22	x					
Pharmacologic concepts for nurses	12	22	x					
Columbia Junior College Columbia 95310								
--					Safety and first aid	24	105	x

PART II CONTINUING EDUCATION						PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE		Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
CALIFORNIA (continued)									
Cuesta College San Luis Obispo	93401								
Coronary care		17	20	x					
Inhalation therapy		17	18	x					
Pharmacology		17	22	x					
Cypress College Cypress	90630								
Critical care nursing		18	35	x		Venereal disease	18	20	x
Pharmacology for nursing		18	40	x					
Diablo Valley College Pleasant Hill	94523								
Clinical periodontics		3da	35						
X-ray		1da	8						
Foothill College Los Altos Hills	94022								
Respiratory therapy review		24	40	x					

Fresno City College Fresno	93741								
AD nursing		18	15	x					
Fullerton College Fullerton	92634								
--						Emergency medical care	2wk	364	x
						Health information and counseling	2wk	2054	x
						Nutrition today	2wk	327	x
Galileo Community College Education Center San Francisco	94109								
LVN equivalency course		18	7						
Medical/Surgical LVN 1		14	34						
Medical/Surgical LVN 2		14	14						
Pharmacology for LVNs		18	58						
Gavilan Junior College Gilroy	94022								
Inhalation therapy		1da	54	x		Cardiopulmonary resuscitation	3	30	x
Orthopedic nursing		1da	80	x		Drug abuse	36	40	x
RN refresher		12	8	x		Emergency medical care	6	60	x
						Mental health	6	10	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
CALIFORNIA (continued)								
Hartnell Community College Salinas 93901								
Coronary care	18	37	x					
Nursing interventions in respiratory cases	12	37	x					
Imperial Valley College Imperial 92251								
--					Mental health	54	42	x
Laney College Oakland 94607								
--					Contemporary health problems	36	200	x
					Weight control	54	50	x
Lassen College Susanville 96130								
--					Emergency medical care	120	30	x
					Mental health	48	15	x

Long Beach City College Long Beach 90808								
Intensive coronary care	6	25	x					
RN refresher	6	28	x					
Los Angeles City College Los Angeles 90029								
Crown and bridge I	18	24	x					
Dental anatomy and terminology	18	42	x					
Dental morphology	18	19	x					
Denture set-up	18	24	x					
Nursing intervention in psychiatric disorders	18	37	x					
Radiologic technology - advanced	18	68	x					
Radiation therapy - fundamentals	18	26	x					
Radiation protection	18	63	x					
Los Angeles Harbor College Wilmington 90744								
Drugs and their effects	20	64	x		Health education	40	300	x
EKG interpretation	20	96	x					

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
CALIFORNIA (continued)								
Los Angeles Trade-Technical College Los Angeles 90015								
Drugs and their effects	18	10			Cardiopulmonary resuscitation	2	30	
Solutions and dosages	18	15	x					
Los Angeles Valley College Van Nuys 91401								
Advanced operating room	6	12	x	x				
Pharmacology	10	153						
Psychiatric nursing	6	22	x	x				
Modesto Junior College Modesto 95350								
Medical gas systems in modern hospitals	6	20	x		Emergency medical care	50	40	x
					Health information and counseling	14	30	
					Heart disease	68	50	x
					Weight control	34	60	x
Monterey Peninsula College Monterey 93940								
--					Drug abuse	54	140	x
					Emergency medical care	75	70	x

Napa College										
Napa	94558									
Advanced nurse's aide		8	41			Alcoholism	4	95		
Baisc nurse's aide		8	18			Cardiopulmonary resuscitation	16	18		
Coronary care		12	35	x						
Emergency medical technician		24	23	x						
Homemaker		24	19							
Leadership and administration in nursing		12	47	x						
Leadership series for nursing home administrators		4da	17							
Nutrition		12	24	x						
Pharmacology		12	60	x						
Ohlone College										
Fremont	94537									
Coronary care nursing		10	60	x		Cardiopulmonary resuscitation	12	6		
Medical terminology		10	70	x		Heart disease	6	203		
Neuroanatomical nursing		10	60	x						
Pharmacology		10	25	x						
Orange Coast College										
Costa Mesa	92626									
--						Health education	26	760	x	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
CALIFORNIA (continued)								
Palomar College San Marcos 92069								
Coronary care nursing	17	46	x	x				
Legal aspects of nursing	17	32	x	x				
Pharmacology for nursing	17	60	x	x				
Rio Hondo College Whittier 90608								
Coronary care nursing	18	36	x					
Electrocardiography	18	66	x					
Emergency medical technician	18	150	x					
Hospital ward clerk	18	60	x					
Pharmacology review	18	59	x					
RN refresher	18	52	x					
Supervision in nursing	18	42	x					
Surgical technician	18	8	x					
San Bernardino College San Bernardino 92403								
Review of pharmacology	18	22	x					

San Diego Evening College								
San Diego 92108								
Basic monitoring	18	62	x					
Care of developmentally handicapped	18	44	x					
Charge nurses supervisory training	18	55	x					
Emergency medical care	18	52	x					
Environmental health	18	56	x					
Geriatrics	18	24	x					
Hospital mgmt. of the communication process	18	51	x					
Hospital ward clerk	18	73	x					
Management development for head nurses	18	44	x					
Medical assisting	18	190	x					
Medical record technology	18	146	x					
Nursing the acutely ill	18	47	x					
Pharmacology for vocational nurses	18	163	x					
Psychiatric nursing	18	20	x					
Radiologic technology	18	141	x					
San Jose City College								
San Jose 95114								
Dental roentgenology	18	46	x		Emergency medical care	36	418	x
					Health education	36	1650	x

PART II CONTINUING EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU
CALIFORNIA (continued)				
Santa Barbara City College Santa Barbara 93109				
Emergency medical technician	10	58		
Emotional care of chronically and terminally ill	13	17		
Hearing information and improvement	13	21		
Home health and hospital aides training	13	48		
Hospital nurses aides	10	24		
Hospitalized patient	12	19		
Intensive cardiac care nursing	2	18		
Introduction to cardiovascular nursing	10	41		
Medical terminology	12	120		
Pharmacology for nursing	12	88		
Refresher course for nurses	13	28		
Spanish for medical assistants	12	44		
Sierra College Rocklin 95650				
Death and dying	9	109	x	

PART III CONSUMER HEALTH EDUCATION

SUBJECT AREA	Hr.	No.	Cr.
Abused child	6	35	
Be alive as long as you live	40	43	
Dealing creatively with death and grief	8	46	
Emergency medical technician	30	58	
Emotional care of chronic and terminally ill	32	17	
Enriching your retirement years	8	252	
Facing death	6	161	
Intensive cardiac care nursing	80	18	
Introduction to cardiovascular nursing	60	41	
Preparation for parenthood	42	106	
Preparation for retirement	8	32	
Weight control			
Fitness for life	64	31	
Nutrition in action	24	161	
Obesity control	20	13	
Weight control	8	31	

Skyline College San Bruno	94066								
First aid		8	21	x					
Health education 1		10	584	x					
Solano College Suisun City	94585								
Advanced pharmacology for nursing		18	24	x					
Basic coronary care		18	25	x					
Basic pharmacology for nurses		18	30	x					
Emergency care		18	70	x					
Medical terminology		18	33	x					
Southwestern College Chula Vista	92010								
--						Childbirth education	20	70	
						Emergency medical care	150	47	x
Ventura College Ventura	93003								
Critical care nursing		17	57	x		Emergency medical care	48	100	x
Medical Spanish		17	28	x		Health education	51	1300	x
Nursing leadership		17	24	x					
Pharmacology review		17	72	x					

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
CALIFORNIA (continued)								
Victor Valley College								
Victorville 92392								
--					Drug abuse	18	33	
					First aid	18	28	x
West Valley Joint Community College								
Saratoga 95070								
Advanced coronary care	18	38	x		Alcoholism	24	54	
Assessment in traumatic injury	6	70	x		Anti-smoking	12	38	
Beginning coronary care	18	35	x		Emergency medical care	8	12	
Cardiovascular surgery	3	70	x		Weight control	18	36	
Coronary care nursing seminar	5	70	x					
Counseling alcoholic patient	18	40	x					
EKG interpretation	4	140	x					
IV therapy for nurses	12	140	x					
Pharmacology	18	78	x					
Rehabilitation nursing	18	30	x					

COLORADO								
Aims College Greeley 80631								
Emergency medical technician	14	30	x		Prenatal	20	120	
Emergency medical technician refresher	10	12	x					
Medical terminology	10	55	x					
Nurse aide orderly (inservice)	10	33	x					
Community College of Denver--North Campus Denver 80216								
Team-leading nursing	10	20	x					
Community College of Denver Red Rocks Campus Golden 80401								
Applied physiology for nurses	4	56	x	x				
Applied physiology for nurses	10	16	x	x				
Fluid and electrolytes	3	43		x				
Pathophysiology	4	44	x	x				
Pharmacodynamics	4	86	x	x				

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
COLORADO (continued)								
Morgan Community College Fort Morgan 8C701								
Nurses inservice training	40	388	x	x	Advanced first aid	16	12	
					Anti-smoking	8	7	
					First aid	10	30	
					Mental health	10	22	
					Stroke	6	52	
Southern Colorado State College College of Community Services & Career Ed. Puebio 81001								
Basic coronary care nursing	4da	20		x				
Care of aging	3da	40		x				
Evaluating staff performance	2da	44		x				
Team leader and staff nurse	17da	50		x				
Trinidad State Junior College Trinidad 81082								
--					Emergency medical care	81	40	x

CONNECTICUT									
Housatonic Community College Bridgeport 06608									
Emergency medical technician	12	80							
Emergency medical technician refresher	7	40							
Norwalk Community College South Norwalk 06854									
Nurse refresher	5	30							
Post Junior College Waterbury 06708									
Emergency medical technician	81hr	40							
DELAWARE									
Delaware Technical and Community College Stanton Campus Newark 19711									
LPN as a charge nurse	60	9	x						

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
FLORIDA								
Brevard Community College Cocoa 32922								
Emergency medical technician	82hr	86						
Nursing update	16hr	55						
Chipola Junior College Marianna 32446								
Supervisory hospital management	2	24			First aid	9	48	
Daytona Beach Community College Daytona Beach 32015								
Drugs and medications for LPNs	15	23		x				
Emergency medical technician	14	26						
Geriatric care	2	64						
Nurse's aide	6	104						
Ward clerk	6	33						
Florida Junior College at Jacksonville Jacksonville 32205								
Continuing ed. for dental assistants	4da	105						

Gulf Coast Community College								
Panama City 32401								
Arthritis clinic	1	124			Drug abuse	10	200	
Death and dying	1	264						
Dental assisting	8	9						
Drug abuse	1	130						
Emergency childbirth	1	12						
Emergency medical technician workshop	1	17						
Mental health and alcoholism	1	25						
Nutrition workshop	1	173						
X-ray clinic	1	21						
Hillsborough Community College								
Tampa 33622								
Emergency medical training	12	37						
Fundamentals of inhalation therapy	8	18						
Cardiovascular nursing I	8	45						
Cardiovascular nursing II	8	63						
Respiratory nursing care	8	37						
Lake City Community College								
Lake City 32055								
--					Cancer	6	15	
					Emergency medical care	81	50	
					Venereal disease	3	45	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
FLORIDA (continued)								
Miami-Dade Community College Miami 33156								
Accredited record technician	6	15						
Advanced electrophysiology	15	25	x					
Critical care nursing	12	265	x	x				
Disease classification system	13	20						
Introduction to electrophysiology	15	22	x	x				
Medical transcription I	13	18						
Medical transcription II	13	12						
Natl. exec. housekeepers assn. seminar	150hr	60						
Pharmacology for nurses and RRT	15	30	x					
Special degree in radiologic technology	52	6	x					
Teaching medical laboratory technology	3da	35						
North Florida Junior College Madison 32340								
Chemical intoxication course for police	10	18						
Emergency medical technician	20	17			Alcoholism	18	148	x
First aid	8	22			Drug abuse	36	148	x

Okaloosa-Walton Junior College Niceville 32578								
--					Emergency medical care	81	41	
Palm Beach Junior College Lake Worth 33460								
Acute respiratory failure	5	92			Natural childbirth education	12	13	
Basic EKG	16	94			Perspectives of healthful living	32	1588	
Cancer conference	1	359						
Care of premature infants	2	102						
Dental research clinic	16	347						
Dental research clinic	6	164						
Intensive coronary care	16	30						
Medical technology workshop	14	20						
Nursing assessment	1	79						
Pasco-Hernando Community College Dade City 33525								
Advanced first aid and emergency care	16	22	x					
First aid and injuries	16	22		x				
First aid and injuries	8	86		x				
First aid and injuries	9	22		x				
First aid and injuries	6	32		x				
First aid and injuries	1	18		x				
First aid and injuries	10	29		x				

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
FLORIDA (continued)								
Pasco-Hernando Community College (cont.)								
Fundamentals of emergency medical care	16	48	x					
Medical terminology	16	20	x					
Seminar: coronary care	15	9		x				
Standard first aid	16	23	x					
Santa Fe Community College Gainesville 32602								
ECG seminar	11	9			Cardiopulmonary resuscitation	4	12	
Expanded duties for dental auxiliaries	2da	2		x				
Nursing cardiovascular monitoring	11	25	x	x				
Oral pathology	2da	1		x				
Seminar for Fla. cardiopulmonary assn.	½	18	x					
St. Johns River Junior College Palatka 32077								
--					Drug abuse	3	50	
St. Petersburg Junior College St. Petersburg 33733								
--					Emergency medical care	81	120	x

Seminole Junior College Sanford 32771								
--					Alcoholism	3	25	
					Emergency medical care	40	15	
					Health information and counseling	3	300	
					Mental retardation	24	20	
					Venereal disease	3	60	
Tallahassee Community College Tallahassee 32304								
--					Concepts of emergency medical care	80	165	
					Concepts of positive living	48	750	x
					Emergency medical care	36	40	
GEORGIA								
Abraham Baldwin Agricultural College Tifton 31794								
--					Drug abuse	2	500	
					Venereal disease	1	400	
Albany Junior College Albany 31705								
--					Alcoholism	n/r	65	x
					Drug abuse	n/r	11	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
GEORGIA (continued)								
Brunswick Junior College Brunswick 31520								
Basic nutrition	1	18		x				
Child day care	8	20		x				
Child day care	7	27		x				
Child day care	2	24		x				
Child development advanced	4	18		x				
Emergency medical technology	13	45		x				
Ward clerk	3	25		x				
Macon Junior College Macon 31206								
Conference on care of the aged	25hr	80		x	Health education	n/r	300	x
Council on dental education	7hr	3		x				
Council on drugs	2hr	20		x				
Council on drugs	1hr	40		x				
Dentist/Dental hygienist seminar	2hr	25		x				
Medical technician review	33hr	18		x				
Patient motivation on practice mgmt.	7hr	12		x				
Role of the professional nurse	10hr	87		x				
Standard first aid	12hr	78		x				
Temp. restorations for fixed prosthesis	9hr	20		x				
X-ray technics	10	21		x				

South Georgia College Douglas 31533								
Advanced surgical nursing	10	10		x	Alcoholism	20	50	
Basic child care I	10	26		x	Anti-smoking	50	65	
Basic child care II	10	10		x	Emergency medical care	1da	35	
Basic rescue training	4da	12		x	Mental health	8hr	30	
Behavior modification workshop	6hr	71		x	Mental health seminar	7hr	16	
Emergency rescue training	1da	35		x	Venereal disease	8hr	60	
First aid for industry	8hr	12		x	Weight control	20hr	25	
General surgery and emergency care	10	23		x				
Pharmacology	8	15		x				
Practical first aid	1da	26		x				
Staff development	7hr	40		x				
Staff development	2da	116		x				
Stroke rehabilitation workshop	5hr	40		x				
HAWAII								
Kapiolani Community College Honolulu 96816								
Basic electronics for MLT	12	16			Cardiopulmonary resuscitation	4	25	x
Pharmacology for practical nurses	16	60	x					

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
IDAHO								
Ricks College Rexburg 83440								
--					Family health and home nursing	30	30	x
ILLINOIS								
Belleville Area College Belleville 62221								
Coronary care	16	32	x					
Intensive patient care	16	30	x					
Black Hawk College--East Campus Kewanee 61443								
Gerontological nursing	2	25	x					
Medical terminology	16	10	x					
Nurse's aide	5	25	x					
Pharmacology for LPNs	16	12	x					
Black Hawk College--Quad Cities Campus Moline 61265								
Coronary care nursing	16	60	x		Emergency medical care	82	75	x

Carl Sandburg Community College									
Galesburg 61401									
Coronary care	12	15	x		Anti-smoking	10	25		
Nursing care plan workshop	1da	115			Diabetes	5	21		
Pharmacology	12	27	x		Health	24	200	x	
					Heart disease	5	40		
College of Lake County									
Grayslake 60030									
Dental refresher	16	29		x					
Pharmacology for nursing	16	14		x					
Highland Community College									
Freeport 61032									
Care of the diabetic child	2	9			Alcoholism	3	103		
Emergency medical training	12	43			Cancer	2	52		
Medical terminology	8	14			Drug abuse	2	75		
Nurse's aides seminar	4	41			Safety for supervisors	10	65		
Pharmacology for LPNs	8	13			Total communications skills	20	34		
RN and LPN seminar	2	51							
RN and LPN workshop	2da	56							
Illinois Eastern Junior Colleges									
Olney 62450									
--					Emergency medical care	72	100	x	

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
ILLINOIS (continued)								
John A. Logan College Carterville 62918								
Nurse aide and orderly	8	13	x					
Joliet Junior College Joliet 60436								
LPN 101	16	13	x		Personal hygiene	48	60	x
Lake Land College Mattoon 61938								
Four handed dentistry	2da	101						
Preventive dentistry	1da	65						
Lewis and Clark Community College Godfrey 62035								
--					Weight control	102	400	
Lincoln Land Community College Springfield 62703								
--					Emergency medical care (EMT-A)	82	60	

Malcolm X College Chicago 60612								
--					Emergency medical care	48	100	x
Moraine Valley Community College Palos Hills 60465								
Medical terminology	12	55			Alcoholism	6	250	
Nurse's assistant I (nursing homes)	12	35			Anti-smoking	30	110	
Nurse's assistant II (nursing homes)	12	10			Birth control	5	180	
Pharmacology	12	46			Cancer	30	150	
					Cooperative blood replacement	24	575	
					Diabetes	20	1035	
					Drug abuse	40	450	
					Family planning	5	180	
					Health information and counseling	n/r	600	
					Hearing screening test	6	500	
					Heart disease	20	935	
					Medi-alert program	n/r	41	
					Stroke	30	110	
					Tuberculosis screening test	8	735	
					Venereal disease	4	185	
					Visual acuity and glaucoma test	10	800	
					Weight control	5	75	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
ILLINOIS (continued)								
Oakton Community College Monton Grove 60656								
Pharmacology (medications)	16	18			Anti-smoking	7½	60	
Parkland College Champaign 61820								
Advanced coronary care nursing	10	11	x		Drug abuse	9	150	
Advanced dental assistant procedures	6	12			Emergency medical care	82	75	x
Community mental health nursing	10	12	x		Family planning	6	20	
Community public health nursing	10	8	x		Heart disease (hypertension screening)	6	150	
Coronary care nursing	10	18	x		Venereal disease	2	5	
Leadership in patient care	10	15	x		Weight control	2	10	
Prairie State College Chicago Heights 60411								
Medical terminology	16	50	x		Alcoholism	1	50	
					Anti-smoking	20	60	
					Cancer	2	20	
					Drug abuse	1	125	

Rend Lake College Ina 62846								
Human growth and development	n/r	12						
Introduction to applied bacteriology	n/r	23						
Medical terminology	n/r	25						
Pharmacology	n/r	15						
Pre- and post-operative care	n/r	17						
Rock Valley College Rockford 61101								
Dental assisting	6	31		x				
Southeastern Illinois College Harrisburg 62946								
Medical terminology	12	39						
Orthopedic nursing	12	31						
Pharmacology	12	13						
Rehabilitative nursing	12	19						
Triton College River Grove 60171								
Advanced coronary care	12	15	x		Anti-smoking	10	62	
Advanced supervisory skills in nursing	12	20	x		Physical fitness for men	36	640	x
Crown and bridge I	15	20	x		Physical fitness for women	36	640	x
Crown and bridge II	15	20	x					

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
ILLINOIS (continued)								
Triton College (continued)								
Dental materials	15	20	x					
Ethics and law	15	20	x					
Intensive coronary care for RN	12	31	x					
Isotopes and nuclear medicine instrumentation	15	24	x					
Medications for LPNs	15	82	x					
Mental health nursing for LPN	15	15	x					
Nursing dynamics (refresher)	12	25	x					
Oral anatomy	15	20	x					
Orthodontic laboratory procedures	15	20	x					
Pharm. concepts and nursing implications	12	22	x					
Rehabilitation nursing for LPN	15	14	x					
Roentgenology for dental assistant	15	14	x					
Supervisory skills in nursing I	12	34	x					
Tooth anatomy and physiology	15	20	x					
X-ray technology (anatomy and positioning review)	6	30	x					
Waubonsee Community College Sugar Grove 60554								
Conversational Spanish I	12	76		x				

Conversational Spanish II	12	16		x				
Pharmacology review	12	62		x				
William Rainey Harper College Palatine 60067								
--					Cardiopulmonary resuscitation	2	15	
					Drug abuse	2	50	
					Family planning	2	15	
					Social seminar	8	21	
					Venereal disease	2	60	
IOWA								
Clinton Community College Clinton 52732								
Emergency medical technician	4	200			Alcoholism	36	127	x
Inhalation therapy technician	3½	14			Cardiopulmonary resuscitation	12	97	x
Nursing aide	4	36			Lamaze prepared childbirth	8	10	x
Pharmacology for nurses	1	12			Multimedia first aid	8	112	x
Hawkeye Institute of Technology Waterloo 50701								
Aerobics	10	460	x		Diabetes	16	20	x
Basic nutrition	10	15	x		Emergency medical care	100	337	x
First aid	4	131	x		Epileptic	20	15	x
Medical terminology	5	48	x					

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
IOWA (continued)								
Hawkeye Institute of Technology (cont.)								
Nurse aide	20	15	x					
Nurse aide	7	151	x					
Sign language	10	53	x					
Indian Hills Community College Ottumwa 52501								
Effective supervisory practices	9	24			Emergency medical care	90	99	
Health and physical education	10	182			Family planning	14	109	
Nurse aide refresher	10	54			Health information and counseling	8	15	
Nursing home education inservice	6	419			Heart disease	54	29	
Ward clerk training	4	9			Mental health	14	42	
Iowa Central Community College Fort Dodge Center Fort Dodge 50501								
Acute trauma problems	6	30			Death and dying	2	101	
Anatomy and physiology	10	16			Diabetes	6	35	
Attitudes and adjustments	3	21			Emergency medical care	14	30	
Basic needs for employee leadership	3	24			Fundamentals of child care	9	11	
Bowel and bladder	2	106			Stroke	9	8	

Budget and finance	3	35						
Cardiac educational workshop	6	484						
Cardiac refresher	20	94						
Coronary care unit	16	48						
Death and dying	2	106						
Dietary seminar	3	57						
Effective communication	6	40						
Emergency medical technician	89	70						
Fluid and electrolyte	15	28						
Head nurse seminar	9	16						
Health facilities asepsis	6	20						
Health facilities maintenance	6	10						
Housekeeping and maintenance	6	29						
Human relations	3	50						
Inhalation therapy	12	77						
Inservice directors workshop	15	17						
Lab. techniques for medical assistants	12	16						
Management by objectives	10	36						
Medical terminology	20	9						
Microbiology	5	19						
Morale, appraisal, eval. and labor rel.	3	22						
Nurse aide - orderly	120	166						
Nurse aide - orderly seminar	15	395						
Nurse reorientation	20	10						
Nursing care plan	6	64						
Peripheral blood morphology	6	10						
Pharmacology	30	13						
Pharmacology review	30	12						
Psychopathology	10	21						

PART II CONTINUING EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU
IOWA (continued)				
Iowa Central Community College (cont.)				
Rap session laboratory	4	17		
Recruiting, interviewing and communicating	3	24		
Stroke symposium	9	67		
Techniques of management	3	21		
Tools of motivating	3	21		
Ward clerk	90	8		
Iowa Lakes Community College Estherville 51334				
Coronary care review	3	40		
Dental radiology	6	12		
Emergency care of injured for law enforcement officers	2	40		
EMTA	13	47	x	
Human relations for nursing home admin.	5	25		
Leadership activity directors program	5	39		
Legal aspects of nursing	1	144		
Nurse aide refresher	7	144		
Nurse aide training	4	152		
Pharmacology	12	118	x	
Rehabilitation of the long term patient	1	21		
Respiratory therapy	1	70		

PART III CONSUMER HEALTH EDUCATION

SUBJECT AREA	Hr.	No.	Cr.
Anti-smoking	1	556	
Blood pressure screening	1	556	
Cardiopulmonary resuscitation	5	127	
Chronic obstructive lung disease	9	22	
Diabetes	12	37	
Drug abuse	2	68	
Emergency medical care	23	40	
Family planning	10	229	
Phono scan and coronary care	15	65	
Venereal disease	2	103	

North Iowa Area Community College Mason City 50401									
Administration of medication	10	95			Alcoholism	6	63		
Continuing ed. for nursing home admin.	24	35			Diabetes	12	66		
Coronary care	10	48			First aid advanced course	10	14		
Creative nursing process	1	41			First aid for farm wives	10	40		
Fluid and electrolyte balance	5	47			First aid for laboratory instructors	10	29		
Homemaker health aid	1	12			First aid standard course	5	7		
Interpersonal relations	5	19			Prenatal for parents	5	36		
Nurse aid orderly	4	49			Staff training for handicapped	21	69		
Nurse aid refresher	1	197			Senior life saving	8	10		
Nurse in the emergency	1	58							
Nursing home inservice	30	275							
Rehabilitation nursing	5	22							
Team nursing	5	23							
Scott Community College Davenport 52801									
Anatomy and physiology	18	34	x		Mental health	36	22		
Chemistry for MLA	5	12	x						
Childbirth education	6	59							
Emergency medical technician	14	24							
Hematology seminar	1	49							
Intensive coronary care	12½	32							
Medical terminology	12	18							
Microbiology	12	29	x						
Psychiatric principles	36	22							

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
IOWA (continued)								
Scott Community College (cont.)								
Psychology for nurses	6	19						
RN refresher	3	19						
RN refresher clinical	2	12						
Sister Kenney workshop	1	51						
Sociology	3½	19	x					
VA refresher	2½	32						
Western Iowa Tech. Community College Sioux City 51105								
Activity directors orientation	4	30			Diabetes	12	30	
Anatomy for ORT	6	10			Diet therapy	20	15	
Basis of medical records	12	13			Drug abuse	6	105	
Child development	6	10			Meat purchasing	12	8	
Foster parent series	16	80			Weight control	20	11	
Homemaker--health aide	16	13						
Parent preschool behavior problems	8	10						
School lunch employees	8	42						
Seeing essential English	6	36						
Teaching handicapped	4	33						
Techniques of supervision for nursing home administration	6	19						

KANSAS								
Coffeyville Community Junior College Coffeyville 67337								
--					Natural child birth	2	50	
					Regional med. lab. meeting	3	50	
Colby Community College Colby 67701								
Medical administration	2	36						
Medical administration	1	72						
Dodge City Community College Dodge City 67801								
Nurse's aide	16	16						
Ward secretary	16	12						
Fort Scott Community College Fort Scott 66701								
--					Emergency medical care (red cross)	8	55	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
KANSAS (continued)								
Highland Community Junior College Highland 66003								
--					Alcoholism seminar	n/r	90	
					Drug abuse seminar	3	47	
					Mental health seminar	n/r	26	
					Weight control	12	8	
Hutchinson Community Junior College Hutchinson 67501								
--					Alcoholism	8	40	
Johnson County Community College Overland Park 66210								
--					Emergency medical care	n/r	66	
					Mental health	n/r	313	
Pratt Community Junior College Pratt 67124								
--					Alcoholism	54	42	x

Seward County Community Junior College Liberal 67901								
--					Drug abuse	18	30	x
KENTUCKY								
Elizabethtown Community College Elizabethtown 42701								
Changing health care delivery system and					Alcoholism	10	40	
implications for nursing	4	12		x	Drug abuse	8	40	
Gerontological nursing	7	112			Emergency medical care	30	25	
Leadership skills in mgmt. of patient care	5	19		x	Family planning	45	15	x
Problems of the elderly	7	48						
Henderson Community College Henderson 42420								
--					Drug abuse	6	12	
					Family planning	10	15	
					Venereal disease	5	15	
Jefferson Community College Louisville 40201								
Nursing care of the patient in pain	1da	150		x				

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
KENTUCKY (continued)								
Prestonsburg Community College Prestonsburg 41653								
--					Alcoholism	6	20	
					Drug abuse	6	20	
					Emergency medical care	16	30	
					Interpersonal relations	10	30	
					You and your child	10	15	
St. Catharine College Springfield 40061								
--					Personal and community health	37½	50	x
Somerset Community College Somerset 42501								
Emergency medical training	20	13			Alcoholism	2	100	
Infant care	6hr	110			Child care	3	12	
MLT workshop	2da	15			Drug abuse	2	100	
					Family planning	4	10	

Southeast Community College Cumberland 40823								
New concepts of drug therapy	10hr	8		x	Alcoholism	$1\frac{1}{2}$	60	
					Drug abuse	$1\frac{1}{2}$	60	
					Family planning	2	50	
					Health information and counseling	1	50	
					Venereal disease	2	50	
Western Kentucky University Bowling Green 42101								
Seminar in mgmt. techniques for health care supervisors	3da	45			Alcoholism	10	150	x
					Anti-smoking	10	150	x
					Drug abuse	36	165	x
					Emergency medical care	81	97	x
					School nurse responsibilities	15	25	x
					Venereal disease	4	25	x
LOUISIANA								
Louisiana State University--Eunice Campus Eunice 70535								
--					Emergency medical care	92	27	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MAINE								
Bangor Community College								
Bangor 04401								
--					Abortion	1	125	
					Anti-smoking	1	44	
					Cancer	2	212	
					Cardiopulmonary resuscitation	2	70	
					Diabetes	2	29	
					Drug abuse	3	50	
					Family planning	2	140	
					Premarital	9	24	
					Prenatal	2	40	
					Venereal disease	2	150	
					Weight control	32	23	
Eastern Maine Vocational-Technical Institute								
Bangor 04401								
Emergency medical technology	15	31						
Nurse's aide	15	23						
Radiologic technology	30	7	x	x				

Northern Maine Vocational Technical Institute Presque Isle 04769								
Anatomy	10	7						
General Pharmacology	10	14						
Nurse's aide	15	18						
Nursing principles and practices	5	5						
Physical therapy	12	42						
Westbrook College Portland 04103								
--					Volunteer institute for the aging	25	40	
MARYLAND								
Allegany Community College Cumberland 21502								
--					Preventive dental health course	48	52	x
					Community Services			
					Dental health school clinic	856	3500	
					Preventive dental health care with Regional Health Planning Council	3	7000	

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MARYLAND (continued)								
Community College of Baltimore Baltimore 21215								
Coronary care	30hr	50		x	Diabetes	2	500	
					Health information and counseling	2	750	
					Heart disease	2	500	
					Mental health	2	750	
					Senior citizens' sex education	2	250	
					Weight control	30	20	x
Howard Community College Columbia 21044								
Newer concepts in psychiatric nursing	8	18			Consumerism – the missing component in hospital service	12	25	
					It's your heart	2½	25	
					Red cross home nursing	16	15	
					Suicide prevention	6	60	
Montgomery Community College Takoma Park Campus Takoma Park 20012								
Dental assisting	11	30			Alcoholism	16	17	
Dental X-ray	6	31						

Prince George's Community College Largo 20870								
Parasitology	12	17			Anti-smoking	8wk	40	
Psychological behavior of dental patient	6hr	42			Cardiopulmonary resuscitation	5	200	x
					Community Services			
					Bloodmobile with American Red Cross	1wk	400	
					Eye testing program	1wk	600	
					Health week	1wk	1000	
					Heart screening clinic with American Heart Association	1wk	1000	
Villa Julie College Baltimore 21153								
--					Current health problems	2	50	x
MASSACHUSETTS								
Cape Cod Community College West Barnstable 02668								
Psychiatric nursing	7	14	x		Workshop on death	n/r	70	
School nurses seminar	4	11						

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MASSACHUSETTS (continued)								
Holyoke Community College								
Holyoke 01040								
Education of paraprofessionals	13	27						
Emergency medical training	16	25						
Environmental health science	15	16	x					
Leadership in nursing	15	20	x					
Nursing process	5	42	x					
Newton Junior College								
Newtonville 02160								
--					Foundations of health	45	40	x
North Shore Community College								
Beverly 01915								
Nurse education lecture series	10hr	155						
Radiologic technology	4	20						
Role of LPNs in care of coronary patients	15	42	x					

Quincy Junior College								
Quincy 02169								
Introduction to public health	15	18	x					
Social health issues-law enforcement	15	21	x					
Springfield Technical Community College								
Springfield 01119								
Death and dying	16	12	x					
Human sexuality in nursing	16	33	x					
Interpersonal relationships	16	24	x					
Prin. of modern psychology for nurses	16	14	x					
Principles of nursing leadership I	16	24	x					
Principles of nursing leadership II	16	25	x					
MICHIGAN								
Bay de Noc Community College								
Escanaba 49829								
First aid	16	48	x		Cardiopulmonary resuscitation	8	48	x
Introduction to nursing	6	25	x		Drug abuse	10	60	x
Legal aspects - nursing	1	20			Emergency medical care	64	48	x
Pharmacology	16	12	x		Venereal disease	10	60	x
Rehabilitation	1	60	x					

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MICHIGAN (continued)								
Delta College University Center 48710								
Documentation of nursing care	12	18		x	Alcoholism	45	15	x
EKG technician	12	13		x	Anti-smoking	10	75	
Home nursing	10	14		x	Drug abuse	45	15	x
Inhalation therapy	10	36		x				
Medical assistant exam room	10	16		x				
Medical assistant lab orientation	10	37		x				
Medical assistant insurance forms	10	25		x				
Medical assistant technology	10	87		x				
Perspectives in nursing	10	20		x				
Preparation for childbirth	8	41						
RN refresher	8	18		x				
Ward clerk I	10	55		x				
Henry Ford Community College Dearborn 48128								
C.C. faculty workshop on curriculum	1	17			Emergency medical care	32	30	x

Kellogg Community College								
Battle Creek 49016								
Emergency medical technician	16	24	x		Expectant parents	12	120	x
Pharmacology	16	35	x		Mental health	15	120	
					Nurse's aide	108	48	x
					Red cross first aid	16	30	x
Kirtland Community College								
Roscommon 48653								
Pharmacology for LPNs	16	12	x		First aid	32	40	x
					First aid (prison camp)	32	10	x
					Health education	48	17	x
Lansing Community College								
Lansing 48916								
Coronary care nursing	10	12	x		Cardiopulmonary resuscitation	6	27	
Dental radiological technologists	10	12	x					
Emergency ambulance technology	10	46	x					
Geriatric health	10	18	x					
Nurse's aide	10	22						
Supervision - patient care team	10	11	x					

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MICHIGAN (continued)								
Montcalm Community College Sidney 48885								
Emergency medical technician	28	35			Alcoholism	10	30	
Intravenous therapy for nurses	1da	60			Arthritis forum	3	120	
Pharmacology	11	35	x		Cancer	18	200	
					Human sexuality and family planning	10	100	
					Venereal disease	2	40	
Muskegon Community College Muskegon 49443								
Emergency medical technician	25	22						
Medical office practice	10	21						
Nursing leadership	12	12						
Pharmacology	18	26						
Psychology of patient care	12	14						
Northwestern Michigan College Traverse City 49684								
Care for adult in foster home	10	44			Drug abuse	32	118	
					Expectant parents classes	14	163	
					First aid - advanced	15	110	

					First aid - standard	12	145	
					Weight control	20	36	
Oakland Community College Highland Lakes Campus Union Lake 48085								
Dental science practice	14	25	x					
St. Clair County Community College Port Huron 48060								
Graduate nurse refresher course	8	17			Weight control	20	52	x
Schoolcraft College Livonia 48151								
Registered nurse refresher	8	24						
Southwestern Michigan College Dowagiac 49047								
Emergency medical technician	27	34			Anti-smoking	12	11	
Nurse's aide	8	23	x		Drug abuse	5	80	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MICHIGAN (continued)								
West Shore Community College								
Scottville 49454								
Medications	8	36	x		Alcoholism	10	78	x
Nurse aid/orderly	6	31	x		Cardiopulmonary resuscitation	6	35	
					Drug abuse	10	56	x
					Emergency medical care	80	21	x
					Venereal disease	10	13	x
MINNESOTA								
Anoka-Ramsey Community College								
Coon Rapids 55433								
--					Drugs, alcohol and tobacco course	36	118	x
					First aid	24	80	x
					Personal and community health	36	101	x
Austin Community College								
Austin 55912								
Ambulatory health care	5	26						
Child bearing today	5	20						
Emergency care concepts	5	55						
Nursing the cardiac patient	5	24						

Fergus Falls Community College Fergus Falls 56537								
--					Alcoholism	12	60	
					Drug abuse	30	40	x
Hibbing Community College Hibbing 55746								
--					Health education	45	125	x
Metropolitan Community College Minneapolis 55403								
Operating room nurse	12	30	x		Alcoholism	36	48	x
					Drug abuse	36	11	x
Normandale Community College Bloomington 55431								
--					Introductory health	36	450	x
Northland Community College Thief River Falls 56701								
Dietary seminar	1	38			Alcoholism	30	52	x
Middle management	1	32			Drug abuse	30	52	x
Rehabilitative and restorative nursing	1	35						
The adult diabetic	1	40						

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
MINNESOTA (continued)								
Rochester Community College Rochester 55901								
Emergency medical training	12	80			Community health	36	550	x
					First aid	36	450	x
					First aid (instructors)	36	30	x
Willmar Community College Willmar 56201								
Creative problem solving in health care	n/r	21						
Emergency care concepts	5	41						
Emergency care of diabetes	5	27						
Emergency first aid	2da	36						
MISSISSIPPI								
Itawamba Junior College Tupelo 38801								
Emergency medical technician–ambulance	10	30						
Executive housekeeping seminar	0.6	16						
Extension pharmacology for LPN	2.4	12						
Laboratory workshop	1	3						

Meridian Junior College Medidian 39301								
Medical terminology	18	33	x		Alcoholism	3	15	
					Drug abuse	3	450	
Mississippi Delta Junior College Moorhead 38761								
Ambulance drivers training	80hr	19			Diabetes	8	40	
Nurse's aide training	24	16			Drug abuse	16	96	
					Heart disease	8	40	
					Neurological patient care	8	40	
Mississippi Gulf Coast Junior College Perkinston 39573								
Review of health care trends	6	68						
Pearl River Junior College Poplarville 39470								
--					Workshop	2	26	
					Community Service			
					Blood pressure screening in two factories	4	400	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr
MISSISSIPPI (continued)								
Southwest Mississippi Junior College Summit 39666								
--					Emergency medical care	90	15	
MISSOURI								
Forest Park Community College St. Louis 63110								
Basic electrocardiography	11	39		x				
Cancer workshop	8	160		x				
Central service management	17	19		x				
Central service supply	17	47		x				
Emergency medical technology I	16	372	x					
Emergency medical technology II	16	379	x					
Emergency medical technology (faculty)	11	34		x				
Nursing home management	16	65		x				
Operating room technology I	17	13	x	x				
Operating room technology II	17	3	x	x				
Survey inhalation therapy	14	22	x	x				

Meramec Community College St. Louis 63122								
Fluid balance	12	13			Emergency medical care	20	72	x
Medical-surgical review	11	38						
Penn Valley Community College Kansas City 64111								
Emergency medical	14	82			Anti-smoking--clinic	3	180	
Respiratory therapy in service classes	2	200			Community Services			
					Dental care for Niles and Gilles Homes for Boys	140	50	
NEBRASKA								
Central Technical Community College Hastings 68901								
Dental radiology	3	18	x					
Mid-Plains Vocational Technical College North Platte 69101								
Ambulance technician	12	72			Emergency medical care	36	46	
Emergency medical technician	24	46			Industrial first aid	10	102	
Geriatric aides	12	20						

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NEBRASKA (continued)								
North Platte Community College North Platte 69101								
Legal aspects of nursing	1	39						
Pharmacology update	5	95						
Omaha Technical Community College Omaha 68131								
Dental radiography	1	14			Creative conflict resolution	30	13	
					Hospital orientation for unit secretaries	30	27	
					Lab. orientation for medical assistants	20	20	
					Medical assistant	30	29	
					Medical terminology	30	63	
Platte Technical Community College Columbus 68601								
First aid	13	21	x		Emergency medical care	26	30	x
Geriatric aid	15	21	x					

NEVADA									
Northern Nevada Community College Elko 89801									
Emergency medical technician	40	30	x		Emergency medical care	40	30	x	
Pharmacology	16	9	x						
NEW HAMPSHIRE									
N.H. Vocational-Technical College Portsmouth 03801									
--					Alcoholism	2	36	x	
					Anti-smoking	4	36	x	
					Cancer	8	36	x	
					Cardiopulmonary resuscitation	4	36	x	
					Diabetes	[illegible]	36	x	
					Drug abuse	2	36	x	
					Emergency/Civil defense	6	36	x	
					Emergency medical care	10	36	x	
					Family planning	14	36	x	
					Heart disease	8	36	x	
					Mental health	20	36	x	
					Stroke	8	36	x	
					Venereal disease	6	36	x	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NEW JERSEY								
Bergen Community College								
Paramus 07652								
Leadership course for nurses	12	31						
Refresher course for nurses	12	27						
Burlington County College								
Pemberton 08068								
Blood banking	n/r	18	x					
Clinical chemistry	14	10	x					
Instrumentation	10	15	x					
Microbiology	14	15	x					
Neurology	n/r	35	x					
Cumberland County College								
Vineland 08360								
Pharmacology	3	12						

NEW MEXICO								
Eastern New Mexico University Roswell Campus Roswell 88201								
Neurophysiology and physiological psychology	10	28						
New Mexico State University Grants Campus Grants 87020								
--					Health information and counseling	48	20	x
NEW YORK								
Adirondack Community College Glens Falls 12801								
--					Anti-smoking	12	65	
					Death and dying seminar	7	90	
					Emergency medical care	45	130	

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr	CEU	SUBJECT AREA	Hr.	No.	Cr.
NEW YORK (continued)								
Bronx Community College Bronx 10468								
Cardiopulmonary resuscitation	9hr	27						
Geriatric nursing	12	28						
Medical assistants	5	20						
Medical surgical technology - LPN	12	57						
Pharmacology and medications - LPN	12	46						
Broome Community College Binghamton 13902								
Cardiac nursing	8	43						
Cardiopulmonary care	6	33						
Care of the diabetic patient	6&8	71						
Inhalation therapy	15	24	x					
Intensive care unit	15	32	x					
Intravenous therapy	6	50						
Medical technology workshop	1da	30						
Dutchess Community College Poughkeepsie 12601								
Dental seminars	6	45			Emergency medical care	48	150	

Gerontology - aides	1	40						
Nurse refresher	9	28						
Nursing and law	4	20						
Erie Community College--North Campus Buffalo 14221								
Commonly used geriatric drugs and interactions	5	30						
Community resources for the aged I & II	10	18						
Psychology of the aged I, II and III	15	38						
Psysiology of the aged and recognition of symptoms I, II and III	15	24						
Restorative and maintenance nursing I, II and III	15	24						
Sociology of aging	15	17						
Erie Community College--City Campus Buffalo 14209								
--					Cardiopulmonary resuscitation	12	12	
					Emergency medical care	55	1125	x
Hostos Community College Bronx 10451								
--					Alcoholism	2	250	x
					Cancer	4	200	x
					Cardiopulmonary resuscitation	1½	15	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NEW YORK (continued)								
Hostos Community College (cont.)								
--					Diabetes	2	250	x
					Drug abuse	8	250	x
					Emergency medical care	4	50	x
					Family planning	4	250	x
					Health information and counseling	6	100	x
					Heart disease	6	250	x
					Human sexuality	30	75	x
					Mental health	45	60	x
					Stroke	1	250	x
					Venereal disease	3	250	x
					Weight control	3	300	x
Jefferson Community College Watertown 13601								
--					Emergency medical care	45	148	
Monroe Community College Rochester 14623								
Continuing education--dental health team	1da	227						

Nassau Community College Garden City 11530								
--					Required health education course	30	1140	
New York City Community College Brooklyn 11201								
Detection, diagnosis and treatment of malignancy	15	50						
Gerontological nursing	15	26						
Intensive coronary care	6	20						
Introduction to biomed equipment tech.	15	21						
Medical records workshop	1	40						
NYC building code and nursing home const.	1	18						
Nursing care planning	6	20						
Nutrition for long term care facilities	1	70						
Patients accounts procedures	10	75						
Pediatric nursing	6	25						
Pharmacology	12	40						
Preventive medicine	6	30						
Niagara County Community College Sanborn 14132								
--					Emergency medical care	45	80	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NEW YORK (continued)								
North Country Community College Saranac Lake 12983								
Intensive care nursing	6	65	x		Emergency medical care	n/r	121	
Queensborough Community College Bayside 11364								
Elements of anatomy, physiology, and microbiology for LPNs	10	22			Nursing courses Health education courses	50½ n/r	250 3400	
Medication and dosage computation for licensed practical nurses	12	73						
Schenectady County Community College Schenectady 12305								
Chemistry for the health science	20	41	x		Personal health	20	144	x
Human anatomy and physiology	30	52	x					
Microbiology	20	46	x					
Pharmacology for nurses	30	19	x					

SUNY Agricultural and Technical Colleges Alfred Campus Alfred 14802								
Emergency medical technician program	12	100			Aging	8	54	
Nursing implications related to the pathophysiology of illness	6	64			Behavior modification: mental health	8	38	
					Behavior modification: reality orientation program	4	23	
					Death and dying	7	113	
					Home health aid	70	11	
					Individualized instruction for nurse education	22	55	
					Team nursing	7	19	
SUNY Agricultural and Technical Colleges Canton Campus Canton 13617								
Preparing the geriatric aide	8	35						
SUNY Agricultural and Technical Colleges Delhi Campus Delhi 13753								
Intro. to advanced pract. resp. therapy	10	11			Emergency medical care	55	30	
Practical respiratory therapy I	10	28			First aid and safety	20	100	x
Practical respiratory therapy II	10	15			Human relations and sexuality	30	1000	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NEW YORK (continued)								
Tompkins-Cortland Community College Groton 13073								
--					Emergency medical care	45	30	x
Ulster County Community College Stone Ridge 12484								
Herbal medicine and folklore	4	37			Health education	30	50	
Introduction to transactional analysis	10	25			Herbal medicine and folklore	8	37	
Living skills seminar	1	18			Mental health	6½	18	
Return to nursing	10	28						
Westchester Community College Valhalla 10595								
EMT certificate training course	15	83						
EMT refresher course	7	21						

NORTH CAROLINA									
Asheville-Buncombe Technical Institute Asheville 28801									
Arithmetic and drug dosage	15hr	24							
Behavior management	50hr	63							
Geriatric nursing	360hr	14							
Medical terminology	160hr	17							
Nurse assistant	300hr	92							
Operating room technique	80hr	36							
Psychiatric technician	480hr	10							
Ward clerk	240hr	12							
Blue Ridge Technical Institute Flat Rock 28731									
Ambulance attendant E-03	8	25			**Weight control (physical fitness)**	32	59		
Ambulance attendant E-04	1	24							
Emergency rescue	5	27							
Emergency rescue	6	25							
First aid - advanced	4	40							
First aid - multimedia	11	99							
First aid - standard	4	90							
Home nursing	7	11							
Nurse's aide	4	11							
Rest home aide upgrading	6	9							

PART II CONTINUING EDUCATION SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	PART III CONSUMER HEALTH EDUCATION SUBJECT AREA	Hr.	No.	Cr.
NORTH CAROLINA (continued)								
Caldwell Community College and Technical Institute Lenoir 28645								
Coronary care	16	30			Cardiopulmonary resuscitation	3	50	
Leadership for LPN	8	17			Diabetes	2	20	
Nurse's aide	16	50			First aid	16	30	
RN refresher	16	10			First aid - multimedia	8	60	
					Prenatal	12	22	
Cape Fear Technical Institute Wilmington 28401								
Nurse's assistant	11	290						
Cleveland County Technical Institute Shelby 28150								
First aid - advanced	4	60		x				
First aid - standard	4	64		x				
Hospital housekeeping	4	16		x				
Menu planning and child nutrition	24	10		x				
Nurse's aide	17	100		x				

Coastal Carolina Community College Jacksonville 28540							
Cardiac care nursing	11	17		Alcoholism	102	45	
Cardiac pulmonary assistants	17	80		Cardiopulmonary resuscitation	33	300	
Dental assistant	4	22		Drug abuse	3	450	
First aid - basic and advanced	2	105		Emergency medical care	30	100	
Geriatric nursing	11	20		Family planning	33	15	
Mental health nurse	11	13		Mental health	100	150	
Mental health workshop	13	12		Weight control	33	85	
Nursing aide (assistant)	17	39					
Nurses inservice (combined)	11	27					
Nurse refresher	17	12					
Pharmacology nurses	11	15					
Rescue attendants E-03 and E-04	11	100					
Davidson County Community College Lexington 27292							
Nursing assistants	16	24		Alcohol education	33	22	
Prenatal or parent classes	5	37		Alcoholism	4	45	
				Ambulance attendant E-04	6	92	
				Cardiopulmonary resuscitation	6	45	
				Drug abuse	15	72	
				First aid	12	34	
				First aid - industrial	10	425	
				Nurse's aide	40	6	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NORTH CAROLINA (continued)								
Durham Technical Institute Durham 27703								
Career mobility in nursing education	2da	50			Cancer	16	40	
Modifying behavioral objectives (audio-visual aids)	1da	30						
Multimedia instructional approach	1	25						
Optometric assistant	10	21						
Edgecombe Technical Institute Tarboro 27886								
--					Coronary care	94½	25	
					First aid - standard	10	73	
					Hospital attendants	153	12	
					Hospital fire safety	12	150	
					Hospital fire safety	4	19	
					Nurse's aide	68	16	
Fayetteville Technical Institute Fayetteville 28303								
Ambulance attendant	1	162			Drug abuse	12	30	
Continuing education for nurses	n/r	125						

Emergency medical technology	6	49						
Good neighbor aide	6	10						
Medical technology	5	34						
RN refresher	6	25						
Gaston College Dallas 28034								
Business communications	5	15			Anti-smoking	8	31	
Death education	10	37			Family planning	8	29	
Eldercare attendaide	4	29			Mental health	20	135	
Hospital food service	12	38			Venereal disease	16	31	
Lamaze childbirth	8	60						
Legal aspects of nursing	5	25						
Nursing mathematics	10	32						
Halifax County Community College Weldon 27870								
First aid	4	45						
Nurse's aide	11	14						
Pharmacology for LPN	11	15						
Holding Technical Institute Raleigh 27603								
Ambulance attendant training	8	66						
Pharmacology	11	54						
RN refresher	10	22						

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NORTH CAROLINA (continued)								
Lenoir Community College Kinston 28501								
Nursing aide assistant	20	100		x	Alcoholism	30	75	
					Emergency medical care	81	100	
					Family planning	16	100	
Montgomery Technical institute Troy 27371								
Allen Rest Home	23	10	x	x				
Inservice program (Montgomery Nursing Home)	23	19	x	x				
Nurse's assistant	12	10	x					
Roanoke-Chowan Technical Institute Ahoskie 27910								
Coronary care nursing	60hr	30						
Diabetic workshop	1da	36		x				

Robeson Technical Institute Lumberton 28358								
Fire service	n/r	546						
First aid	5	91						
Nurse's aide	10	54						
Rescue training	10	433						
Rockingham Community College Wentworth 27375								
First aid	5	14			Weight control	44	206	
First aid	2	25						
First aid	1	99						
Health education	11	206						
Home companion	10	20						
Home companion	1	11						
Medical surgical nursing review	1	6						
Nurse's aide	10	60						
Nurse's aide	3	22						
Nurse's aide	5	9						
Rowan Technical Institute Salisbury 28144								
Care of burn patient	3hr	100		x	Alcoholism	4	35	x
Child care education	11	98		x	Drug abuse	4	35	x
Concepts of OB–GYN nursing	8	115		x	Mental health	12	54	
Coronary care	11	54		x				

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NORTH CAROLINA (continued)								
Rowan Technical Institute (cont.)								
Family planning	7hr	118		x				
First aid	10hr	25		x				
Nurse's aide	60hr	38		x				
Nurse seminar	22hr	20		x				
Nurse upgrading	11	18		x				
Patient helper	10hr	33		x				
Personal development	6hr	16		x				
Pharmacology	11	77		x				
Psychiatric seminar - physicians	6hr	44		x				
Psychiatry for nurses	10	109		x				
Reading improvement	11	10		x				
Sandhills Community College Southern Pines 28387								
Hospital supervision	3	34		x	Alcoholism	8	15	
Nurse's assistant	10	13		x	Drug abuse	89	72	
Nurse's assistant	11	15		x	Emergency medical care (red cross)	123	261	
Nurse's assistant	12	20		x				
Nurse's assistant upgrading	4	8		x				
Nurse's assistant upgrading	14	14		x				
Nursing procedures for X-ray technician	1	10		x				

Nursing process	7	15		x					
Orderly training	4	13		x					
Southeastern Community College Whiteville 28358									
Nurse assistant	36	160			Emergency medical care	6	30		
Southwestern Technical Institute Sylva 28779									
Emergency medical technician	12	23			Anti-smoking	3	35		
Stanly Technical Institute Albermarle 28001									
Medical terminology	10	20			Emergency medical care	78	126		
Patient assistant training	2	42			Health information and counseling	197	115		
Patient assistant training	3	28			Mental health	293	167		
Ward secretary training	7	10							
Surry Community College Dobson 27017									
Home nursing	15	25							
Nurse's aide	15	100							

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
NORTH CAROLINA (continued)								
Technical Institute of Alamance Burlington 27215								
Nursing assistant	13	13			Drug abuse (faculty)	24	18	
Patient attendant	12	25			Emergency medical care	81	30	
Pharmacology for LPNs	24	35						
Tri-County Technical Institute Murphy 28906								
Nurse's aide	6	14						
Vance-Granville Technical Institute Henderson 27536								
First aid	11	16	x					
Home health aide	11	16	x					
Nurse's assistant	11	22	x					
Pharmacology	11	52	x					
Western Piedmont Community College Morganton 28655								
Advanced nursing arts	8	25			First aid - standard	12	38	

Anorexia nervosa	1	9	
Attendant training	4	329	
Behavior modification	12	14	
Behavior modification	8	22	
Blood bank procedures	8	35	
Child development	8	14	
Communications	8	15	
Cottage parent training	16	61	
Dental radiology	11	17	
Drug abuse	1	41	
Electroconvulsive therapy	1	152	
Emergency procedures and equipment	1	97	
First aid - multimedia	1	6	
First aid - standard	1	114	
Hospital fire safety and patient education	1	553	
Interpersonal relations	1	190	
Intro. to the study of exceptional children	12	45	x
Manual communications	11	44	
Physical therapy	3	49	
Psychiatric aide training	12	10	
Psychiatric nursing	8	140	
Restorative nursing	8	101	
Sex education	12	16	
Staff development	1	52	
Symptoms of epilepsy	1	6	
Therapeutic community	1	143	
Training community staff on mental retardation	8	34	
Unit dose medication	1	74	

Help training	20	32	
Manual communications	44	95	
Medical terminology	16	16	
Nurse's assistant training	66	40	
Nursing care for the aging	33	30	
Preparation for parenthood	6	71	

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
OHIO								
Belmont Technical College St. Clairsville 43950								
Pharmacology	18	27	x	x	Cancer	7	200	
Psychology	12	27	x	x	Evacuation and fire	3	30	x
Cincinnati Technical College Cincinnati 45223								
Anatomy and physiology I, II and III	10	300	x		Cardiopulmonary resuscitation	5	20	
Basic laboratory techniques	20	30	x		Emergency medical care	50	20	x
Chemistry	10	50	x					
Coding in ICDA – 8	10	38	x					
Dietitian food service management	20	80	x					
Food service supervision	10	40	x					
Medical record science seminar	10	22						
Microbiology	10	30	x					
Pathology	10	30	x					
Pharmacology	10	30	x					
Psychology	10	30	x					

Clark Technical College Springfield 45505								
Leadership for RNs	5	15			Alcoholism - driver reeducation (DWI)	80	170	
Medical assistant's workshop: health insurance forms	1da	40			Home health care for senior citizens	20	26	
					Mental health	32	58	
Medical assistant's workshop: Ohio's Medicade system	1da	40						
Jefferson County Technical Institute Steubenville 43952								
Pharmacology for LPNs	16	20	x					
Kent State University--Ashtabula Campus Ashtabula 44004								
--					Alcoholism	5	67	
					Cancer	6	130	
					Drug abuse	4	39	
					Mental health	6	127	
					Weight control	177	60	
Lima Technical College Lima 45804								
Physical science for nurses	10	65						

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.	
OHIO (continued)									
Lorain County Community College 44035 Elyria									
Coronary care - PN	2	27							
Coronary care - RN	4	21							
Scioto Technical College 45648 Lucasville									
Pharmacology for LPNs	16	24							
OKLAHOMA									
Connors State College 74469 Warner					Emergency medical care		80	15	x
--									
Oscar Rose Junior College 73110 Midwest City					Personal adjustment		48	614	x
					Personal health		32	304	x
Dietetic technician program development		1	23						

South Oklahoma City Junior College Oklahoma City 73159								
--					Cardiopulmonary resuscitation	4	45	x
					Emergency medical care (red cross)	8	30	x
					Health information and counseling	2	80	x
OREGON								
Blue Mountain Community College Pendleton 97801								
Mental health personnel seminars and workshops	n/r	192	x		Alcoholism for the drinking driver	10	140	
Nurse's aide training	6	36	x		Emergency medical care for EMT personnel	81	56	
Pharmacology review I and II	10	30	x		Maternal child care seminar	3	76	
Principles of supervision	5	5	x		Prepared parenthood	24	92	
Central Oregon Community College Bend 97701								
Medical transcription	30	15	x		Anti-smoking	30	20	
Pharmacology	30	20	x					
Chemeketa Community College Salem 97303								
Nursing leadership	6	19	x		Drug abuse	36	140	x
RN refresher	10	12	x		First aid	48	160	x
					Personal health	36	370	x

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
OREGON (continued)								
Clackamas Community College Oregon City 97045								
Nursing leadership for RNs	10	17	x		Emergency medical care	81	31	
Pharmacology for LPNs	10	24	x					
Mt. Hood Community College Gresham 97030								
Intensive coronary care nursing	20	45	x		Behavioral modification	8	300	
LPN medication	10	45	x		Cardiopulmonary resuscitation	3	50	
Nursing leadership and supervision	10	17	x		Therapeutic use of heat	3	200	
Respiratory therapy - advanced I and II	10	43	x					
Roentgenology for dental assistants	15	9	x					
Oregon Institute of Technology Klamath Falls 97601								
Dental assisting expanded duties	8	17	x		Emergency medical care	50	25	x
Portland Community College Portland 97219								
Individualized curriculum workshop	1	125						

Microteach workshop	1	20	x					
Nursing leadership series	6	100	x					
Patient aide	11	52	x					
Pharmacology for unit secretaries	1da	40						
Practical nurse refresher	11	40	x					
Southwestern Oregon Community College Coos Bay 97420								
Prenatal intensive care	6	54	x		Emergency medical care	90	31	x
					First aid	30	90	x
					Health information and counseling	30	153	x
					Weight control	33	95	x
Umpqua Community College Roseburg 97470								
First aid to meet OSHA requirements	12hr	400			Emergency medical care	81	20	x
First aid	25hr	35	x					
IU therapy	20hr	11	x					
PENNSYLVANIA								
Community College of Beaver County Monaca 15061								
Review of nursing procedures	2	11						

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
PENNSYLVANIA (continued)								
Pennsylvania State University Mont Alto Campus Mont Alto 17237								
Communication in medical organizations	1da	14						
Management training for department heads	25da	17						
Management training for department heads	10da	12						
Physician's seminars	12da	22						
Planning care for geriatric patient	1da	35						
Sensory deprivation	1da	30						
Westmoreland County Community College Youngwood 15697								
Refresher course for PNs	15	12						
Use of AD nursing graduates seminar	1da	83						
RHODE ISLAND								
Rhode Island Junior College Warwick 02886								
Inhalation therapy	30	37			Cardiopulmonary resuscitation	6	400	x
Medical terminology	15	37			Emergency medical care	71	400	x

Nurse refresher	15	54						
Veterinarian assistant	15	28						
SOUTH CAROLINA								
Aiken Technical Education Center Aiken 29801								
Emergency medical technician	18	36						
Midlands Technical College Columbia 29250								
Advanced coagulation workshop	1	90			Cardiopulmonary resuscitation	2	70	x
Annual dental hygiene seminar	1/7	204			Emergency medical care	24	50	x
Annual seminar (TB-RD) association	1/7	200			Mental health	50	25	x
Immunology and serology workshop	6	52	x		Venereal disease	2	70	x
Oral hygiene education	12	200						
Preventive dentistry program	12	171						
Respiratory therapy for area professionals	2	10						
Orangeburg-Calhoun Technical College Orangeburg 29115								
Emergency medical technician	15	43		x	Cancer	10	150	
First aid - multimedia	1	78		x	Drug abuse	10	125	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
SOUTH CAROLINA (continued)								
Piedmont Technical College Greenwood 29646								
--					Emergency medical care	80	45	
					Pharmacology for LPNs	n/r	12	
Sumter Area Technical College Sumter 29150								
Coronary care	17	15						
First aid	1	80						
Hospital bookkeeping	6	20						
Patient sitter	2	16						
Tri-County Technical College Pendleton 29670								
Basic supervision (hospital personnel)	8	17		x	Cardiopulmonary resuscitation	12	50	
Electrocardiogram	2	33			Drug abuse	3	452	
Emergency medical technician	12	112		x	Weight control	24	123	
First aid	2	13						
First aid - multimedia	1	353		x				
How to handle and use a microscope	1da	13						
Medical lab technician review	4	19						
Patient sitter	5	25		x				

Trident Technical College North Charleston 29405								
Respiration and respirators	10	25						
University of South Carolina Lancaster Regional Campus Lancaster 29720								
--					Drug abuse	16	40	x
University of South Carolina Union Regional Campus Union 29397								
--					Drug abuse	4	150	
SOUTH DAKOTA								
Black Hills State College--Junior College Spearfish 57783								
--					Health education	48	100	x

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
SOUTH DAKOTA (continued)								
Presentation College Aberdeen 57401								
Cancer rehabilitation	2da	70			Alcoholism	20	25	
Community health representatives	4	45			Diabetes	24	40	
Crisis intervention	1da	100			Emergency medical care	14	15	
Death: a living experience	6hr	50			Prenatal	15	200	
Death and dying	2da	100						
Dietary management	2da	35						
Nurse's aide workshop	1da	85						
Nurses association	3da	25						
School nurses association	1da	85						
TENNESSEE								
Cleveland State Community College Cleveland 37311					Emergency medical care	82	75	x
--								
Columbia State Community College Columbia 38401								
Nursing care planning workshop	1da	101						
Problem oriented medical research	½da	30						

Shelby State Community College Memphis	38122								
Emergency medical services		10	50	x		Emergency medical care	81	50	x
Pharmacists assistants		16	70	x					
TEXAS									
Angelina College Lufkin	75901								
Nurse's aide		10	25						
Brazosport College Lake Jackson	77566								
First aid - multimedia		1	25			Emergency medical care	8	25	
Registered nurses review		10	10		x				
Clarendon College Clarendon	79226								
--						Family planning	48	18	x
						Health information and counseling	48	26	x
College of the Mainland Texas City	77590								
Home nursing		12	12		x	Heart disease	2½	1920	
Medical terminology		12	25		x				

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
TEXAS (continued)								
Del Mar College Corpus Christi 78404								
Medication and pharmacology for vocational nurses	7	183						
Nurse aide/orderly	10	306						
Ward clerks	16	89						
El Centro College Dallas 75202								
Nursing home administrator and training	200hr	50						
RN refresher	10	20						
Grayson County College Denison 75020								
Coronary care	16	21		x	Alcoholism	8	150	
					Cancer	4	50	
					Emergency medical care	96	41	x

Kilgore College--J. Malcolm-Kati Mai Crim School of Nursing								
Kilgore 75662								
Leadership - how it grows	1da	75		x				
Workshop for aged	2da	51		x				
McLennan Community College								
Waco 76708								
Basic hospital nurse aide	10	22			Defensive driving	8	1007	
Financial management of the nursing home	9	17			Water safety training	10	500	
First aid - advanced	2da	31						
General admin. in the nursing home "A"	6	18						
General admin. in the nursing home "B"	7	13						
Health care plan (OSHA)	2da	208						
Health care seminar - OSHA comp.	1da	168						
Medical terminology	18	21						
Nursing home technology	7	16						
Personal and auxiliary relationships in the nursing home	10	21						
Ward clerk	10	13						
Midland College								
Midland 79701								
Dental assistant	8	17		x				
Food service supervisors	30	32		x				
Medical terminology	12	14		x				
Nurse's aide	9	45		x				

PART II CONTINUING EDUCATION						PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE		Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
TEXAS (continued)									
Odessa College Odessa	79760								
Neurological nursing		1da	58			Be fit and feel healthier	12	14	
						Diets for diabetics	3	5	
						Low sodium and chloresterol diet workshop	3	6	
						Medical Spanish	20	28	
Paris Junior College Paris	75460								
Components of nursing practice		12	40		x				
Nurse's aide		6	32		x				
St. Philip's College San Antonio	78203								
--						Alcoholism	3	500	
						Cancer	2	1000	
						Drug abuse	1	100	
						Family planning	5	500	
						Mental health	1	200	
						Venereal disease	4	600	
						Weight control	4	20	

Schreiner College Kerrville 78028								
Communications and interpersonal relationships	5	15			Drug abuse	2	35	
				x	Emergency medical care	1	50	
Tarrant County Junior College District Fort Worth 76102								
Building maintenance for hospital personnel	60hr	12			Alcoholism	4	23	
Building sanitation for hospital personnel	24hr	29			Anti-smoking	6	147	
Emergency medical technician	90hr	57		x	Blood reserve fund	11	45	
Geriatric nurse aide	100hr	209			Cancer	114	380	
Hospital sanitation	30hr	55			Cardiopulmonary resuscitation	34	237	
Institutional food preparation	72hr	20			Diabetes	2	45	
Intermediate nurse aide	100hr	18			Drug abuse	6	124	
Medical record analysis	120hr	20			Emergency medical care	99	392	
Medical terminology	30hr	63			Family planning	354	974	
Nurse's aide I	100hr	9			Health information and counseling	2506	9793	
Preparing job description for hosp. personnel	18hr	15			Heart disease	8	34	
Reading efficiency for hospital personnel	16hr	15			Human sexuality	615	1465	
Spanish for hospital personnel	24hr	27			Mental health	183	170	
Typing for ward clerks	45hr	45			Sickle cell anemia	79	189	
					Stroke (hypertension)	24	283	
					Tuberculosis	35	447	
					Venereal disease	123	248	
					Visual screening	73	176	
					Weight control	437	1145	

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
UTAH								
Utah Technical College at Provo Provo 84601								
Pharmacology	1	9	x		Health education	159	153	x
					Mental health	690	153	x
VERMONT								
Champlain College Burlington 05401								
Dental assisting	5	50						
Ethan Allen Community College Manchester Center 05255								
--					Basics of nutrition	18	9	x
					Child care workshop	20	100	
Green Mountain College Poultney 05764								
--					Weight control	28	30	x

VIRGINIA									
Dabney S. Lancaster Community College Clifton Forge 24422									
--					Drug abuse	30	110	x	
					Expectant parents course	20	15		
Danville Community College Danville 24541									
Concepts of personal and community health	10	24	x		Employing child psychology techniques in school lunch programs	10	34		
					First aid - standard	10	31		
					Mental health	20	164		
					Quantity cooking and sanitation	60	34		
New River Community College Dublin 24084									
--					Alcoholism	8	50		
Northern Virginia Community College Annandale Campus Annandale 22003									
Muscular dysfunction	4	40			Alcoholism	16	848		
Radiography for dental assistants	5	17			Cardiopulmonary resuscitation	4	227	x	
					Drug abuse	24	260		

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
VIRGINIA (continued)								
Northern Virginia Community College (cont.)								
					Emergency medical care	91	36	
					Health information and counseling	7	196	x
					Introduction to allied health education	30	47	x
					Mental health	17	227	x
Nothern Virginia Community College Alexandria Campus Alexandria 22311								
--					Concepts of personal and community health and safety	30	60	x
Southern Seminary Junior College Buena Vista 24416								
--					First aid	10	69	x
					Health education	30	28	x
Southside Virginia Community College Christanna Campus Alberta 23821								
Chemistry for nurses	10	15			Concepts of personal and community health	30	100	x

Southside Virginia Community College John H. Daniel Campus Keysville 23947								
Emergency medical technician	21	56			Concepts of personal and community health	30	120	
					Emergency medical care	30	60	x
					Weight control	20	18	x
Thomas Nelson Community College Hampton 23667								
--					Prenatal care	10	12	
Tidewater Community College Portsmouth 23703								
Emergency medical technology	17	65		x				
Virginia Highlands Community College Abingdon 24210								
Behavior modification techniques	5hr	120			Medical self help	16	14	
Cardiovascular nursing	5hr	120						
Management - respiratory difficulties	5hr	98						
Management - tubercular patient	5hr	97						

PART II CONTINUING EDUCATION

SHORT TERM COURSE TITLE		Wks.	No.	Cr.	CEU
WASHINGTON					
Bellevue Community College					
Bellevue	98027				
Emergency nursing care		11	210		
Centralia College					
Centralia	98531				
Medical records		6	45	x	x
Medical terminology		11	9	x	x
Restorative nursing		11	80	x	x
Clark College					
Vancouver	98663				
Coronary care nursing		11	16	x	

PART III CONSUMER HEALTH EDUCATION

SUBJECT AREA	Hr.	No.	Cr.
Alcoholism	33	16	x
Consumer health	33	60	x
Drug abuse	33	16	x
Health for adult living	33	675	x
Human sexuality	33	75	x
Venereal disease	11	36	x

Everett Community College Everett 98201							
Advanced emergency care	7	10	x	Cardiopulmonary resuscitation	3	31	
Coronary care	10	18	x	Child abuse	6	254	x
Current practices in nursing	10	6	x				
Emergency room nursing	7	21	x				
Leadership in nursing	10	35	x				
Pharmacology in nursing	15	33	x				
Grays Harbor College Aberdeen 98520							
General chemistry	15	26	x				
Organic chemistry	15	19	x				
Rehabilitation workshop	1da	56	x				
Urology seminar	1da	96	x				
Highline Community College Midway 98031							
Crisis intervention for RNs	6	25	x	Alcoholism, anti-smoking, cancer,			
Emergency medical technician	11	50	x	drug abuse	18	1000	
Nurse's aide	1	20	x	Cardiopulmonary resuscitation	12	42	
Nursing leadership	11	23	x	Diabetes	12	20	
Operating room techniques	10	12	x	Family planning	18	300	
Team leading	11	20	x	Heart disease and stroke	2	150	
				Industrial frist aid	10	180	
				Mental health	6	100	

PART II CONTINUING EDUCATION | PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
WASHINGTON (continued)								
Highline Community College (cont.)								
					Water safety and first aid	10	450	
					Weight control	12	51	
					Community Service			
					Immunization clinic	12	395	
Lower Columbia College Longview 98632								
Child assessment	1	11	x	x	Alcoholism	6	50	
Coronary care for nurses	11	21	x	x	Heart disease	5	150	
Problem oriented - medical records	5	50	x	x				
North Seattle Community College Seattle 98103								
Basic pharmacology for LPNs	12	30	x		Emergency medical care	75	87	x
Emergency medical technician	11	87	x					
Medical terminology and anatomy and physiology	11	26	x					
Personal and interpersonal transactions	11	19	x					

Olympia Vocational-Technical Institute Olympia 98502							
Coronary care	12	25	x	Alcoholism	36	13	x
Dietetic assistant	12	12	x	Cardiopulmonary resuscitation	36	25	x
Emergency medical technician	12	80	x	Emergency medical care	48	80	x
Expanded dental	12	30	x	Family planning	72	50	x
Medical terminology	12	17	x				
Pharmacology	12	7	x				
Understanding alcohol and alcoholism	12	13	x				
Olympic College Bremerton 98370							
Coronary care for LPNs and RNs	10	24	x	Alcoholism	10	15	x
Refresher medications for LPNs and RNs	10	17	x				
Seattle Central Community College Seattle 98122							
Expanded functions for dental assistants	11	25	x				
Expanded functions for dental assistants occupational extension	11	8					
LPN medications	34	66					
Occupational extension - dental assistants	34	11	x				
RN refresher	8	62					

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
WASHINGTON (continued)								
Spokane Community College Spokane 99202								
Anatomy - physiology	30hr	8	x		Emergency medical care	80	39	
Caries control	30hr	16	x					
Communications	30hr	20	x					
Computor based health	25hr	13	x					
Coronory care	38hr	22	x					
Coronary care	90hr	40	x					
Dental assistant - unit V	120hr	13	x					
Emergency medical technician	80hr	39	x					
Medical records consulting	15hr	10	x					
Medical terminology I	60hr	37	x					
Medical terminology II	60hr	13	x					
Medical terminology III	57hr	11	x					
Medications	30hr	14	x					
Motivation	10hr	15	x					
Nurse aide I	30hr	18	x					
Nurse aide II	30hr	16	x					
Nursing leadership	32hr	18	x					
Nursing leadership	20hr	43	x					
Principles of management	30hr	20	x					
Restorative nursing	12hr	30	x					
Roentology	15hr	25	x					
Ventilation and blood gases	38	13	x					

Tacoma Community College Tacoma 98465					Cardiopulmonary resuscitation Emergency medical care	3 81	1000 30	 x
--								
Yakima Valley College Yakima 98902					Alcoholism Diabetes	8 24	50 90	
--								
WEST VIRGINIA								
West Virginia Northern Community College Wheeling 26003					Alcohol information workshop	10	40	x
--								
WISCONSIN								
Blackhawk Technical Institute Janesville 53545								
Basic gerontology LPN medications Medical terminology	10 13 10	10 24 12						

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
WISCONSIN (continued)								
Concordia College Milwaukee 53208								
--					Drug abuse	42	15	x
Lakeshore Technical Institute Sheboygan 53081								
Anatomy and physiology	14	23			Mental health	90	34	
Dental assistant seminar	1	72		x				
Drug administration	14	26						
Medical terminology	14	18						
Madison Area Technical College Madison 53703								
Dental materials	10	15			Emergency medical care	20	75	
Emergencies in a dental office	10	15						
Medical terminology	10	32						
Meeting emotional needs of patients	10	30						

Mid-State Technical Institute Wisconsin Rapids 54494								
--					Disaster and fire drill	2	300	
					Emergency medical care	12	43	
					Growth and development of adolescent	6	500	
					Kidney condictions - donors, etc.	2	43	
					Slimmer you	24	15	
					Venereal disease	2	43	
Milwaukee Area Technical College Milwaukee 53203								
Chemistry for health sciences	15	15	x					
Drugs and their administration	12	74						
Drugs and their administration (Cudahy campus)	12	37						
Environmental health 162	15	13						
Environmental health 163	15	17						
Nursing assistant	6	82						
Nursing assistant (Cudahy campus)	5	114						
Nursing assistant (Port Washington campus)	12	29						
Nursing assistant (Shorewood campus)	7	68						
Moraine Park Technical Institute Fond Du Lac 54935								
Emotional health	24hr	10						
Health occupations and the law	24hr	11						

PART II CONTINUING EDUCATION

PART III CONSUMER HEALTH EDUCATION

SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
WISCONSIN (continued)								
Moraine Park Technical Institute (cont.)								
Introduction to health occupations	24hr	11						
Medical terminology	24hr	35						
Medications/implications for LPN	24hr	43						
Rehabilitative/restorative measures	8hr	78						
Nicolet College Rhinelander 54501								
Nursing assistants	120hr	45						
Northeast Wisconsin Technical Institute Green Bay 54303								
Communication techniques for LPN	5	36			Oral hygiene	1	25	
Continuing education--nursing assistant	5	86						
Death and dying	1	209						
Drugs and their administration	8	46						
Extension ed. for dental assistant	12	39						
Medical terminology I	10	62						
Nursing assistant--inservice	6	237						
Rehabilitation techniques	1	84						
Supervisory housekeeping	1	38						
Surgical procedures	8	55						

Southwest Wisconsin Vocational Technical Institute Fennimore	53809								
Charting workshop		10	309						
Diabetes		10	63						
Drugs and their administration		10	29						
First aid		10	80						
Gerontology		10	55						
Helping the handicapped		10	44						
Home nursing		10	8						
Medical terminology		10	18						
Nursing assistant--inservice		10	412						
Nursing care plan workshop		10	174						
Stroke		10	39						
Supervisory training		10	30						
WYOMING									
Central Wyoming College Riverton	82501								
--						Emergency medical care	84	45	x
Western Wyoming College Rock Springs	82901								
--						Emergency medical care	90	56	x

PART II CONTINUING EDUCATION					PART III CONSUMER HEALTH EDUCATION			
SHORT TERM COURSE TITLE	Wks.	No.	Cr.	CEU	SUBJECT AREA	Hr.	No.	Cr.
PUERTO RICO								
Humacao Regional College Humacao 00661								
Psychiatric nursing	1	29			Family planning	1da	200	
CANADA								
Grant MacEwan Community College Edmonton, Alberta T5J 2P2								
Overview of nursing theory	3	36	x					
Lethbridge Community College Lethbridge, Alberta T1K 1L6								
Dental assistant	n/r	15						
Drug abuse and people workshop	2da	84						
Health assistant	n/r	11						
Infection control	1da	76						
Occupational therapy worker	n/r	14						

Mohawk College Hamilton, Ontario L8N 3T2		
Human physiology and the basic mechanism of disease	12	55
Introduction to reality therapy	1	24

RESPONSES RECEIVED TOO LATE FOR INCLUSION IN TABULATIONS

CALIFORNIA

Santa Rosa Junior College
Santa Rosa 95401

Shasta Community College
Redding 96001

FLORIDA

Polk Community College
Winter Haven 33880

KANSAS

Hesston College
Hesston 67062

MASSACHUSETTS

Blue Hills Regional Technical Institute
Canton 02021

MICHIGAN

Mid Michigan Community College
Harrison 48625

NEBRASKA

Southeast Nebraska Technical Community College
Lincoln 68506

NEW JERSEY

Salem Community College
Penns Grove 08069

RESPONSES RECEIVED TOO LATE FOR INCLUSION IN TABULATIONS (Contd.)

NEW YORK

Bronx Community College
Bronx 10453

NORTH CAROLINA

Craven Community College
New Bern 27560

OHIO

Northwest Technical College
Archbold 43502

TEXAS

Texas State Technical Institute
James Connally Campus
Waco 76705

VERMONT

Norwich University
Vermont College Division
Montpelier 05602

WASHINGTON

Big Bend Community College
North Campus
Moses Lake 98837

Fort Steilacoom Community College
Tacoma 98499

WEST VIRGINIA

Parkersburg Community College
Parkersburg 26101

WISCONSIN

District One Technical Institute
Eau Claire 54701

North Central Technical Institute
Wausau 54401

APPENDIX I

Sahe bibliography

The documents in allied health and nursing education appearing in this SAHE annotated bibliography are listed alphabetically by (1) an author's last name or (2) the first word of an association/agency name or (3) the initial word in the title of the publication when the author's name does not appear (usually the case with a study or project funded by a federal, state, or local source). The bibliography is arranged in three sections: Books; Articles, Studies, and Projects; and Classification of Articles, Studies, and Projects. All publications in the Articles, Studies, and Projects section are numbered. These numerals are used to cross reference a particular document to the appropriate category in the classification section.

BOOKS

Carnegie Commission on Higher Education. *Higher Education and the Nation's Health: Policies for Medical and Dental Education*. New York: McGraw-Hill Book Company, Oct. 1970, pp. 130.

This report deals with the serious shortage of professional health manpower, the need for expanding and restructuring the education of professional health personnel, and the vital importance of adapting the education of health manpower to the changes needed for an effective system of delivery of health care in the United States. The main emphasis is on the education of physicians and dentists and the programs for training physician's and dentist's associates and assistants that are being developed in several university health science centers. Throughout, a distinction is made between health care education and health care delivery.

Grupenhoff, John T., and Strickland, Stephen P. (eds) *Federal Laws: Health/Environment Manpower*. Washington: Science and Health Communications Group, 1972.

Contains an extensive inventory of health manpower legislation, laced with commentaries by a group of contributing editors. These essays provide an historical perspective of the development of health manpower legislation in the United States. The appendix has some of the source documents on federal health manpower programs, including the President's health message to Congress (1971), copies of health manpower acts and excerpts from pertinent committee reports which have appeared in the *Congressional Record*. A useful reference for those involved in the preparation of allied health and nursing personnel.

McTernan, Edmund J., and Hawkins, Robert O. Jr (eds) *Educating Personnel for the Allied Health Professions and Services—Administrative Considerations*. St. Louis: C. V. Mosby Co., 1972.

Twenty-three authors contribute to this overview of issues and problems in allied health education. The contents are arranged in five parts which deal with major areas of interest to those involved in educating allied health personnel: organization and planning, program development, budget and financing, student and faculty matters, and matters of special interest, such as core curriculum and continuing education. In the Foreword Darrel J. Mase challenges allied health educators to become consumer-oriented by educating allied health personnel to meet health and medical care needs through mindpower rather than to develop systems that will merely produce more manpower. A reference for administrators, educators, students, and practitioners in allied health.

Moore, Margaret L., Parker, Mabel M., and Nourse, E. Shepley. *Form and Function of Written Agreements in the Clinical Education of Health Professionals*. Thorofare, N. J.: Charles B. Slack, Inc. 1972.

This book reports the outcomes of a workshop in interinstitutional agreements in which a nationally selected group of physical therapy and other health professionals participated. Its focus is on the three parties involved in clinical education, namely, students, clinical educators, and institutional educators; it emphasizes the fact that affiliation agreements should be jointly developed by the parties concerned and that agreements should be documented in writing. Results of the workshop interactions are described in detail and translated into useful guidelines, including the profile of a contract. Useful for all allied health educators, but especially important to those involved directly in clinical education.

Sadler, Alfred M. Jr., Sadler, Blair L., and Bliss, Ann A. *The Physician's Assistant—Today and Tomorrow*. New Haven: Yale University, School of Medicine, 1972.

This book offers a description of the development of the physician's assistant profession and a discussion of current problems and possible future directions. It gives a brief survey of a few programs which seem to train the same professional but have diverse objectives, for example, general versus specialty. It examines the nursing profession, nursing education programs, and the relevance of physician's assistant to the nursing profession. It deals with legal aspects involved in utilizing physician's assistants and with accreditation and certification questions. There are significant recommendations for future action. Guidelines for physician's assistant programs and a tabulated summary of existing programs appear in the appendix.

ARTICLES, STUDIES, AND PROJECTS

1.

Adams, Frederick G., and Grant, Maye H. "The Black Health Manpower Need." *Community and Junior College Journal* 44: 11-12, March 1974

The need for black persons as health care professionals is urgent, and two-year colleges and their personnel have vital roles to play in training these workers. Effective education for black students must include an educational plan for expanding black students' horizons in terms of career selection, as such choices relate to black community needs. Also, education programs should be focused on exit skills rather than entrance requirements and on stratification of the student body according to societal needs.

2.

Aisen, May W. "Up the Vocational Stairs." *American Journal of Nursing* 70: 2614-2617, Dec. 1970.

The author describes a variety of different health manpower training programs taking place in and around New York City—the objective of each being to solve manpower shortages and to help workers advance. The programs range from courses organized to teach typing and medical transcription to one which prepares nurse-physician surrogates.

3.

Allied Health Articulation Project: Problems and Guidelines. Chapel Hill: University of North Carolina, Oct. 1972 (mimeo). 25 pp.

An interim report, mainly problems relating to the transfer of credit in North Carolina Health Education Programs—purpose of transfer, criteria for transfer admissions, and ways of obtaining transfer credit—in two-year and senior institutions. Proposes specific guidelines for transfer of dental auxiliary students, medical laboratory technicians, physical therapy assistants, and radiologic technology students. The project was sponsored by the University of North Carolina and the North Carolina Department of Community Colleges.

4.

Allied Health Education Programs in Junior Colleges/1970. Washington: Government Printing Office, 1972. 402 pp.

This directory was compiled by the American Association of Community and Junior Colleges and is a comprehensive source of allied health training programs in two-year colleges. It also provides data on which to establish national, regional, state, and local priorities for health manpower education. In addition it is supplementary reference for academic and career guidance counselors at every level of education and for professional organizations in health and related fields. The directory has an inventory of programs (1) by state, (2) by type of allied health specialty, (3) by type of future programs, and (4) by type of short-term allied health specialty.

5.

Allied Health Education Programs in Senior Colleges/1971 Washington: Government Printing Office, 1971. 499 pp.

The association of Schools of Allied Health Professions has compiled this directory of allied health programs in senior colleges and universities in the United States. Information about 2278 allied health programs offered in 719 senior colleges is included. Part I records programs by location; Part II inventories the programs by program title. The materials should assist policy makers in planning for health care, aid analysts in projecting trained professional manpower supply in the allied health field, help administrators plan educational programs to meet professional and other occupational manpower requirements, and inform educators and counselors about programs available in the allied health field.

6.

Allied Health Manpower Survey 1972. Tucson: Arizona Regional Medical Program, July 1, 1972 (mimeo). 55 pp.

A compilation of 32 summary tables revealing the allied health manpower market in Arizona in 1972. Computations include full time equivalents, funded open positions, anticipated new vacancies (1973), and percent of funded positions vacant. Appendix includes the survey questionnaire, together with instructions and job definitions.

7.

Allied Health Professions Personnel Training Act of 1966, as Amended. Report to the President and Congress. Washington: Government Printing Office, 1969. 94 pp.

The Act requires that a report on the administration of the Act, an appraisal of the programs thereunder, and recommendations as a result thereof be submitted by the Secretary to the President and the Congress. This document is the report prepared to meet that statutory requirement. It has been developed in the Division of Allied Health Manpower, Bureau of Health Professions Education and Manpower Training, National Institute of Health, the operating unit within the Department of Health, Education, and Welfare. The publication outlines the provisions and implementation of the Act and the grant programs accomplishments. One chapter treats allied health manpower supply and requirements; another, education and training needs.

8.

Allied Health Professions Project: Interim Report. Pittsburgh: Educational Projects, Incorporated, Nov. 1972 (spiral). 12 pp.; appendix 70 pp.

Initial plans for the statewide survey of eight allied health professions—nursing, inhalation therapy, radiology technician, clinical laboratories, medical records, food service, hospital business office, and ward management—for the purpose of devising models for curriculum development. A seven-part appendix includes a detailed validation of an existing curriculum for radiologic technology and an analysis of two tasks for emergency medical technician. In addition, the publication has a section titled "Emergency Medical Services: Pre-Hospital Care Project." This draft offers a survey of ambulance services, patient contact report, and task analysis outlines.

9.

Allied Health Professions Project: Interim Report. Pittsburgh: Educational Projects, Incorporated, June 1973 (spiral). 27 pp.; appendix 75 pp.

Directed primarily toward institutions which provide career education programs, that is, toward vocational and technical schools and community colleges. This study proposes to develop a task-analysis methodology (job-related curriculum) for these occupations: nursing, inhalation therapy, radiology technician, clinical laboratories, medical records, food service, hospital business office, ward management, emergency medical technician. Appendix includes: A—Definition of a work unit; B—Tasks lists (emergency medical technician, nursing, inhalation therapy, ward management, radiology technician, and food service); C—Partial allied health labor market study: city of Philadelphia.

10.

Allied Health Professions Project: The Development of Job-Related Curricula Using Task Analysis. Pittsburgh: Educational Projects, Incorporated, Oct. 1973 (spiral). 36 pp.

Explains a method for translating job requirements, in terms of tasks, into instructional units and curricula. Includes a sample pre-task analysis checklist and two flow diagrams as structural models of the task.

11.

American Association of Community and Junior Colleges. *A Guide for Health Technology Program Planning*. Washington: the Association, 1967. 52 pp.

Section 1 of this Guide presents an analysis of program development in health technologies. There are suggestions to help the college administrator become more knowledgeable about the health field and to assist a general advisory committee in its conduct of a survey of community health manpower needs. Criteria are indicated for exploring the feasibility of college sponsorship of programs in high-priority health areas. Consideration is given to the means of securing program resources and for curriculum development and evaluation. This section concludes with a checklist of college administrative functions. Section 2 gives general information about the two-year college—background for health facility administrators and health practitioner association representatives who will work with the college in the development of programs in health technology education. Two checklists delineate the roles of the health facility administrator and the health practitioner in collaborating with the college.

12.

American Association of State Colleges and Universities: *Allied Health Education Systems: Planning for the Future*. Washington: the Association 1973 (mimeo).

Separate reports of four workshops conducted in 1973 by AASCU—March HEW Region III in Washington; April Region II in Albany, New York; May Region IV in Memphis, Tennessee; and July Region I in Bolton Valley, Vermont. These meetings were action-oriented, with time devoted to small group discussions—in task groups and in state caucuses. The purpose: to improve the planning and coordination of allied health education programs. Problems discussed include certification, licensure, utilizaton, and distribution of personnel, coordination among institutions engaged in allied health education, and availability of reliable health manpower data. The publications record the discussions, reports of the groups, and lists of participants.

13.

American College Health Association, Committee on Junior/Community Colleges. *The Development of Health Programs for Junior and Community Colleges. An Interpretation of Recommended Standards and Practices for a College Health Program*. Evanston, Ill.: the Association, Oct. 1971. 67 pp.

A draft of a project to help two-year colleges which are either developing new health programs or attempting to improve those already in existence. It offers descriptions of services and activities included in community college health programs and includes suggested implementation procedures for each component health service. It also presents recommendations for staffing, selecting the physical plant, and procedures of business management.

14.

American Hospital Association. *Career Mobility: A Guide for Program Planning in Health Occupations*. Chicago: the Association, 1971. 25 pp.

Designed to guide health care institutions, educational institutions, and other interested agencies in planning career mobilities. Directed toward administrators of these institutions, the paper suggests the potential benefits a career mobility program will offer for employees, institutions, and communities they serve. Guidelines are recommended, together with ways to implement the program. A glossary offers definitions of career mobility terms.

15.

American Hospital Association. *Educational Programs in the Health Field*. Chicago: the Association. Annual.

An annual reprint from the *AHA Guide to the Health Care Field*. The booklet lists the approved and accredited educational programs in 31 health occupation categories. It serves as a supplement to local listing of health occupations education programs and as a reference for guidance counselors, directors of training, and other educators.

16.

American Hospital Association. *Financial Aid Programs in Support of Health Occupations: A Guide for Auxiliaries*. Chicago: the Association, 1971. 78 pp.

Offers a step-by-step guide to auxiliaries for setting up financial aid programs for undergraduate, graduate, and continuing education students in all health occupations. Outlines methods—for scholarships, stipends, tuition refunds. Choosing from these programs, an auxiliary can tailor a system of financial aid especially suited to the needs of its health care institution and its community. The Appendix mentions General Handbooks on Health Occupations, Selected References on Financial Aid, Publications of General Interest to Auxiliaries Sponsoring Financial Aid Programs. The Appendix also contains a description of the college scholarship service.

17.

American Hospital Association. *Health Career Programs*. Chicago: the Association. Annual.

Compiled by the Division of Career Information of the American Hospital Association, this survey describes the activities of 65 health careers programs in the United States and Canada. The report is organized alphabetically by state, with Canadian programs concluding the listing.

18.

American Hospital Association. *Health Manpower: An Annotated Bibliography*. Chicago: the Association, March 1973 (mimeo). 57 pp.

In two sections: (1) publications and articles on various aspects of health manpower, such as recruitment education and manpower programs; (2) a representative selection of reference materials on minority group employment. Particularly helpful are the names and addresses of the publishers which appear in a section at the end of the publication.

19.

American Hospital Association. *Policy Statement on Provision of Health Services*. Chicago: the Association, 1971. 16 pp.

In four parts, this publication states the goals and programs for the provision of better quality, more convenient health care for all people and emphasizes the fact that existing systems of delivery of health services must be substantially restructured. It describes the objectives and operation for state health care corporations to synthesize management, physicians, personnel, and facilities into structures with the capacity and responsibility to deliver comprehensive health care to the community. It also delineates the role of the government, stating that a national health board and a coordinated program for financing the nation's health care should be established through federal legislation.

20.

American Hospital Association. *Statement of Licensure of Health Care Personnel* (Leaflet) Chicago: the Association, 1971. 14 pp.

Because of the complexity of the issues involved in the licensure of health care personnel, the AHA suggests that the job at hand is to elicit mutual cooperation from professional groups, educators, employers, and legislators for short-range improvements in order to provide time for the development and implementation of long-range solutions. This Statement recommends the implementation of a three-part plan of action for alleviating the immediate problem brought on by occupational licensure.

21.

American Hospital Association. *Survey of Selected Hospital Manpower: A Preliminary Report*. Chicago: the Association, Feb. 1973 (mimeo). 37 pp.

This publication presents 30 tables from the *Survey of Selected Hospital Manpower*. These tables provide estimates of the numbers employed and the number of positions vacant for 14 allied health occupations in community hospitals for the United States, four regions and nine geographic divisions. The estimates were obtained from responses to a questionnaire mailed to a stratified random sample of community hospitals. The survey was conducted by the Bureau of Research Services, AHA. (An analysis of the 1973 data is found in a separate publication.)

22.

American Medical Association. *Allied Medical Education Directory*. Chicago: the Association. Annual.

A yearly updated listing of 2700 educational programs approved by the Council on Medical Education for 22 allied health occupations. In addition to the location of each program, the Directory includes entrance requirements, length of program, tuition, certificate awarded upon completion. Produced for physicians, educators, guidance counselors, students as well as for schools, libraries, and health profession agencies and employers.

23.

American Medical Association, Council on Medical Education. *Self-Analysis Outline for Allied Health Education Programs*. Chicago: the Association, Oct. 1973 (mimeo). 28 pp.

A guide to help the various allied medical personnel educational programs in designing self-analysis outlines. The first part details curricula components (general studies and professional studies) and provides a set of categories and standards through which the program component can be reviewed. One section deals with aspects of faculty competence in relation to the development and execution of the program, with conditions for effective faculty performance. Another section reviews standards for admission, retention, and counseling. There is information about resources and facilities for the program. The guide concludes with comments on evaluation, program review, and long-range planning.

24.

American Medical Association, Department of Allied Medical Professions and Services. *Guidelines for Educational Programs for the Assistant to the Primary Care Physician*. Chicago: the Association. Feb. 1974. 30 pp.

Describes how the *Essentials* (minimum standards of quality recognized by accreditation) are interpreted and are illustrative of their flexibility and accommodation of different approaches to the design and conduct of educational programs preparing assistants to primary care physicians. Appendix I—a reproduction of the *Essentials*; Appendix II—a bibliography of sources relating to the education of physician's assistants.

25.

American Medical Association, Department of Community Health. *Guide for Program Planning: Emergency Medical Service Technician*. Chicago: the Association, 1972. 34 pp.

Developed in conjunction with the American Association of Junior Colleges, this publication recommends a two-year teaching program, including curriculum content, for the education of emergency medical service technicians. It presents the role, duties, and performance of this new health profession and details four technical courses which are utilized by one college in preparing the student for functioning in the delivery of priority health care services.

26.

American Medical Association, Department of Health Manpower. *Educational Programs for the Physician's Assistant*. Chicago: the Association, Fall 1973. 36 pp.

Contains three *Essentials* defining criteria for approval of these allied medical educational programs: Essentials of an Approved Educational Program for the Assistant to the Primary Care Physician (adopted by the AMA House of Delegates December 1971); Essentials of an Accredited Educational Program for Orthopaedic Assistants (adopted December 1969); and Essentials of an Approved Educational Program for the Urologic Physician's Assistant (adopted June 1972). Standards and requirements for approval of these three allied medical education programs are explained.

27.

American Medical Association, Department of Health Manpower. *Employment and Use of Physician's Assistants*. Chicago: the Association, 1973. 39 pp.

Summary of the results of a mail survey of physician's assistants working in the health field. The publication reveals general biographical and employment information, data on the level of supervision given the PA in performing specific health care tasks, and information on the level of responsibility delegated to the PA in managing certain common patient problems on first presentation. Of value to potential physician employers, educators, third party payors, and regulatory bodies currently wrestling with delineation of acceptable limits on PA functions. A second publication with the same title (1973, 16 pp.) answers 12 pertinent questions for physicians who are considering the employment of physician's assistants in their practice, among them: What is a PA? What is the PA prepared to do for the physician? How should the PA relate to the office nurse? How should a PA be paid?

28.

American Medical Association, Subcommittee on Continuing Education. *Information Bulletin on the Continuing Education Unit*. Chicago: the Association, April 12, 1974 (spiral). 62 pp.

Discusses the need for the continuing education unit (CEU) and the work of the National Task Force appointed to recommend a unit of measure and suggest several operating procedures which should be followed by an institution wishing to award units to participants in its program. The bulletin includes descriptive essays on CEU by Keith E. Glancy, Paul J. Grogan, Warren G. Ball, and Grover J. Andrews. The interim statement of the Task Force and Standard Nine of the standards of the College Delegate Assembly of the Southern Association of Colleges and Schools are reproduced here. Also presented is the pilot project initiated to test the Task Force recommendations for use of CEU. Fourteen institutions cooperated in applying the CEU during the 1970-1971 school year. It was concluded that CEU has great potential; it can only be realized, however, when it is accepted much more widely, especially by industry and by professional and technical societies.

29.

American Medical Association, Subcommittee on Legislation. *Allied Medical Education Legislation*. Chicago: the Association, May 1974. 22 pp.

This interesting bulletin provides general information on the provisions of existing legislation, presents suggestions for the formulation of needed additional support and reference material and resources for use by the organizations concerned. In seven parts: (1) Background on federal legislation to assist in the education of health manpower; (2) Trends in federal legislation for support of medical education; (3) Issues; (4) Recommendations concerning allied health education; (5) Veterans Administration; (6)

Indian Health Care Improvement Act; and (7) State legislation for physician's assistants.

30.

American Medical Association, Subcommittee on Terminology. *The Language of Allied Medical Education.* Chicago: the Association, Jan. 1974. 36 pp.

A working draft of a glossary of terminology for the allied medical professions and health occupations. Organized into clusters of terms which are mutually dependent upon one another to clarify their meanings. In some instances, additional explanation appended to the definition clarifies a point. The document also lists acronyms and initials of selected organizations, groups, and projects and gives certification and registration designations.

31.

Anderson, Miles H. *Development and Validation of Instructional Programs for the Allied Health Occupations.* Washington: U.S. Department of Health, Education, and Welfare, Office of Education. July 1, 1973 (spiral). 229 pp.

This report of the Allied Health Professions Project applies the principles of vocational education to the problems of curriculum and instructional materials development in the health occupations field for use in educating health workers. The materials are designed for use in preemployment as well as extension or upgrading programs, with emphasis on achieving improved articulation between educational levels for a greater degree of career mobility. More than 60 hospitals, extended care facilities, medical laboratories, and dental facilities cooperated with scores of schools and colleges in their testing of completed instructional materials. The report discusses methods and procedures followed in the 25 occupational analyses and offers an innovative task-oriented method of preparing instructional materials based on the analyses.

32.

Area Health Education Centers. Washington: Government Printing Office, May 1973. 48 pp.

The Area Health Education Center (AHEC) trains health personnel at locations where health needs are greatest. Authorized by the Comprehensive Health Manpower Training Act of 1971, AHEC links health service organizations and educational institutions to serve both the student and surrounding community. Medical schools, schools of osteopathic medicine, or university health science centers join with one or more hospitals to provide education and training in areas in serious needs of health personnel. This booklet describes the eleven programs established in 1972: West Virginia University, Medical University of South Carolina, University of North Carolina, University of North Dakota, University of New Mexico, Tufts University School of Medicine-Maine (Portland), University of Missouri at Kansas City, University of Minnesota (St. Cloud), University of Texas Medical Branch, Galveston, University of Illinois, University of California at San Francisco.

33.

Atwell, Robert J. "Interdependence of Medical and Allied Health Education." JAMA 213: 276-277, 13 July 1970.

The author states that medical institutions have started the educational programs for the allied health professions and have furnished faculty and the general educational climate for these curricula; beyond that, however, interdependence does not exist. The job is to secure interface between the medical and the allied health students. Though the allied health practitioners must demonstrate what contributions they can best make and must offer to assist in the education of the physician, the medical educators have a responsibility for informing allied health students of what responsibilities should be delegated, how, and to whom.

34.

Bienstock, Herbert. "Changing Patterns of Costs and Structure in the Health Sector." *Annals of the New York Academy of Science* 166: 934-950, 31 Dec. 1969.

Some complex problems such as the increasing expenditures for health, the changing pattern of public and private spending, the rising prices of health care and the rise in wages, and the changing occupational structure of employment are examined. The author is certain that the distribution of population provides a substantial part of the background of current pressures in the health industry. By 1975 it is anticipated that just about one half of the population in the United States will be under 25 years of age and one tenth will be over 65. Therefore, with three out of every five Americans in the age categories that provide peak loads in terms of medical care requirements, the demand for medical services will continue to grow substantially, especially when coupled with recent legislative developments that have greatly extended medical coverage. Training programs—the primary sources of new health workers—and their output must be expanded to meet 1975 employment requirements, and the pressure of manpower shortages will accelerate the utilization of women in the health work force.

35.

Bilovsky, David, and Matson, Jane. "The Mentally Retarded: A New Challenge." *Community and Junior College Journal* 44: 16-18, March 1974.

The authors point out that more than one-half of all retarded persons within a community are adults for whom organized educational experiences are, in the main, nonexistent. Some community colleges, however, are conducting programs which fall into two major categories: (1) those designed to serve the mentally retarded adult by offering some form of educational service, and (2) those designed to prepare paraprofessionals to work in a variety of settings involving the mentally retarded. In this second category, the authors mention preparatory programs for mental health technician, human services aide, special education teacher aides, and mental retardation technician; and courses in the nature and problems of retardation for employees of social welfare agencies, city recreation departments, police departments, or programs designed to upgrade the skills of those working in hospitals, sheltered workshops, or foster homes where the major focus is on service to the mentally retarded.

36.

Brown, Carol A. "The Division of Laborers: Allied Health Professions." *International Journal of Health Services* 3: 435-444, March 1973.

The author points out that as health services have become hospital-centered, many specialized health occupations have been created, and maintains that these allied health occupations conflict with the medical profession for occupational territory and that the development of these subordinate occupations has been controlled by the medical profession to its own benefit. The author explains how control is achieved through domination of professional societies, education and training, industrial rules and regulations, and government licenses; and offers examples of the process of control from the fields of radiology and pathology.

37.

Cady, John F., and Anderson, Carl T. "The Preceptorship in Allied Health Education: Short-Term Results of a Program to Influence the Distribution of Allied Health Manpower." *Journal of Allied Health* 3: 34-39, Winter 1974.

In a preceptorship, students are placed in a primary care environment under the tutelage of practicing professionals. In the program described here the students represented a total of nine health disciplines: medicine, nursing, pharmacy, physical therapy, podiatry, hospital administration, medical social work, dentistry, and medical technology. Preceptor disciplines matched those of the students. The authors summarize the findings of the exploratory study and generally conclude that after the eight-week period working in a rural primary care setting the students' preceptions of rural practice became more favorable.

38.

Canfield, Albert A., and Others. "Competencies for Allied Health Educators." *Journal of Allied Health* 20: 180-186, Fall 1973.

A study conducted by University of Florida professors. The work identifies certain competencies needed for those anticipating teaching in the allied health field. Ten broad program goals are developed for teacher preparation and competency areas through which goals that might be achieved are defined: instruction, curriculum development and planning, education, administration and supervision, research, community health concepts, and specialty theory and skills. In addition, the study delineates numerous specific talents essential for successful teaching in the health care field. This article notes the techniques used and the procedures followed in the conduct of the study, lists the general program goals, and describes the specific competencies derived from the work.

39.

Catalanello, Ralph F., and Others. "Evaluative Research Design for a Health Manpower Innovation." *Social Science and Medicine* 6: 229-239. April 1972.

The authors state that an evaluative research approach to health innovations involving physician's assistants is necessary if effective and rational policies for future health manpower allocation are desired. The article develops a framework encompassing the multiple regression approach to data analysis to allow determination of the community impact and acceptance of a physician's assistant in doctorless rural communities. Recognition of the complexity of many research problems has led to the specification of a flexible structure which allows modifications and accomodates the measurement of change. This approach provides an improved methodological framework for studying the effectiveness and preplanned changes in the primary care system.

40.

Certification in Allied Health Professions. Washington: Government Printing Office, Sept. 1971. 110 pp.

These proceedings highlight the interface of the health care industry with other social systems and forces, outline the needs for a credentialing process to parallel a changing health care system, and describe the current status of the certification process of the allied health professions. The publication includes resource materials and reports of eight task groups, exploring practices, social and economic implications, principles and standards of the credentialing process for allied health personnel. This is the final report made to the Division of Allied Health Manpower by the Association of Schools of Allied Health Professions, the contractor for the Invitational Conference on Certification in Allied Health Professions held at the University of Maryland Continuing Education Center, September 7-10, 1971.

41.

Chabot, Andre, and Gordon, Carla. "Training Health Students in Comprehensive Health Planning." *American Journal of Public Health* 61: 1760-1764, Sept. 1971.

A description of a funded demonstration project to train health students in comprehensive health planning carried out through a variety of teaching techniques and experiences within the Denver, Colorado, area. Both the curriculum and an evaluation of the project are included. The authors say that the strengths of the project, in addition to the obvious informational input on comprehensive health planning, have been shown to be the flexibility of the program to fit the needs of the specific student, the involvement of trainees from a wide variety of educational backgrounds, the varied orientations and problem-solving approaches which these different trainees bring to the program.

42.

Challenor, B.D., and Others. "An Educational Program for Allied Health Personnel." *American Journal of Public Health* 62:223-228, Feb. 1972.

This article describes an educational program for indigenous family health workers without previous medical experience and with only minimal prior education, developed by the Model Cities Administration, City of Boston, and Northeastern University, Boston, Mass. The philosophy and content of the program are presented as well as courses taken and worker performance. Individual motivation appeared to be the single most important factor influencing successful performance in the program, according to the authors. They suggest further expansion of similar programs as a means of easing current health manpower shortages and creating new health careers for local community residents.

43.

Christman, Luther. "Education of the Health Team." JAMA 213: 284-285, 13 July 1970.

It is of paramount consideration to bring into reality new and better forms of delivering health care, and therefore all disciplines must be joined in planning change rather than creating a professional generation gap. This effort, explains the author, should be designed to encourage the best possible use of the skills of each of the professions in order to fulfill a public obligation to improve patient care as well as to evolve a greater degree of motivation and commitment in educating the health team.

44.

Cohen, Arthur M., and Brawer, Florence B. *Measuring Faculty Performance.* Washington: ERIC Clearinghouse for Junior College Information, American Association of Community and Junior Colleges, 1969. 81 pp.

This monograph attempts to reduce the separation between research on teachers and practices of teacher evaluation in the junior college. It examines the current status of faculty ratings, discusses problems in establishing criteria for faculty evaluation, and considers the question of why evaluation should be conducted at all. The junior college is seen as an institution which can help in the study of both teachers and teaching by holding to a clear rationale, tying its studies to theory, and participating in genuine research efforts. Lengthy bibliography.

45.

Community Health Education Project. Detroit: Michigan Heart Association, 1970. 66 pp.

A report on the training of a new kind of health worker, the community health aide, as a paraprofessional in health education. It presents the ways a cross-section of health agencies brought their resources to bear on the health problems of the poor. This project demonstrates that new programs to educate auxiliary health workers can extend information, create new manpower, and bring low- or fixed-income citizens into the system.

46.

Community Health Survey Summary Report. Rockford, Ill.: Rockford School of Medicine, Office for Community Health Research, 1973. 248 pp.

A summary of health information gained from a consumer survey of Winnebago and Boone counties in Illinois, conducted for Comprehensive Health Planning of Northwest Illinois, Inc. Through mail, telephone, and personal interview in predetermined areas, the data gathered appears in raw form in a statistical appendix. Chapters include Introduction to the Rockford Metropolitan Area; Medical Care: Characteristics of Care—Last Physician Visit; Hospitalization; Health Status (conditions and diseases); Dental Care; Family Planning and Birth Control; Health Care Costs; Environmental Quality. The survey report concludes with the 21-page Community Health Survey questionnaire.

47.

Community Organization for Allied Health Manpower. Chicago: Illinois Bureau of Employment Security, Human Services,Manpower Career Center, June 1971. 22 pp.; appendix unnumbered.

Details how a consortium of health, manpower, and educational agencies and community organizations worked together to support and strengthen the recruitment, training, and utilization of allied health manpower in the Chicago Metropolitan area. Presented are the projects of four task forces: technical assistance, barrier removal, occupational development, and manpower priorities. Appendix I: Guidelines for Physician's Assistant Programs in Illinois; II: Twenty-five Barriers that Restrict the Effective Recuritment, Training, and Utilization of Allied Health Manpower in Illinois; III: Hospital Employment Survey.

48.

Comprehensive Health Education Planning Project. Final Report, Fiscal Year 1972-73. Phoenix, Ariz., Maricopa County Community College District, Aug. 1973 (mimeo). 42 pp. and appendix.

Details the steps taken to bring about the concept of an intra-district consortium of the allied health programs in a large multi-college district (Maricopa

County Community College District, of which metropolitan Phoenix is the center). Outlines the resulting comprehensive approach to the development of a more efficient training of students for health careers. Appendix VI (59 pp.) Evaluation and Priority System for Health Career Programs: Section One—Existing Health Career Programs (30 pp.); Section Two—Newly Proposed Health Career Programs (29 pp.).

49.

Conant, Robert M., and Hatch, Thomas D. "Policies for the Development of Credentialing Mechanisms for Health Personnel." *The American Journal of Occupational Therapy* 28:288-291, May-June 1974.

This report reviews generally the activities in the area of credentialing and updates specifically the activities of the Division of Associated Health Professions, Bureau of Health Resources Development of the Department of Health, Education, and Welfare. Until recently, credentialing was considered to be primarily the concern of the various health professions organizations and state regulatory boards. But now the federal government has assumed responsibility for many programs and regulatory functions that are affected by credentialing policies and practices—one example being the development and evaluation of equivalency and proficiency testing mechanisms through specific authorities. A table in this article shows in detail the status of proficiency examination development.

50.

Consortium of Allied Health: Counselor's Manual. Buffalo: State University of New York, School of Health Related Professions, n.d. 97 pp.

Helpful to those who are charged with providing career and academic orientation for allied health. Information available for the following careers: Dental Assisting, Dental Hygiene, Dietetics, Food Service Administration, Inhalation/Respiratory Therapy, Medical Laboratory Assisting/Technology, Medical Office Assisting, Secretary/Technology, Occupational Therapy/Therapy Assisting, Operating Room Technology, Ophthalmic Dispensing, Physical Therapy, Radiologic Technology, Radiotherapy Technology. In addition, the manual has sections on equal opportunity programs, institutional costs, and financial aid for several of the careers.

51.

Continuum in Health Occupations Education. Report of a Planning Project for Health Occupations Education. Concord, N.H.: New Hampshire Health Careers Council, 1971. 29 pp. and 19 appendices.

A project which outlines proposals to implement a health careers model of ladder/lattice growth, using the academic features of core curriculum, differentiated staffing in education, equivalency examinations, and compatible academic articulation between levels of preparation for the ultimate advantage of the allied health student, the allied health profession, and the assurance of health care for all society.

52.

"*Core Concept in Allied Health:* A summary of the ASAHP Report." *Journal of Allied Health* 2: 97-106, Summer 1973.

In brief, this article makes clear that the label "core curriculum" has little meaning in the allied health professions educational field. Common objectives sought through existing curriculum plans that are labeled "core" and which emerge from the study as the basis for educational principles to be set forth in the development of allied health training programs include (1) relevance of training for work; (2) encouragement of communication among the allied health categories, leading to the delivery of health services by a health team; (3) interdependence of behavioral and social sciences with the physical sciences; and (4) a problem-solving approach to training. This summary was developed from the full report *Core Concept in Allied Health* prepared by the Association of Schools of Allied Health Professions.

53.

Corley, Robert G., and Elder, Owen C. Jr., "You Can Go Home Again: Health Careers for Rural Alabama Students." *Appalacia* 7:1-9, Feb.-March 1974.

Describes two unique programs, both funded partially by the Appalachian Regional Commission, which demonstrate some new ways to alleviate the manpower shortage in rural health-care facilities. One project is through a consortium between 21 junior colleges and the Regional Technical Institute. Another is through summer and Christmas holiday jobs in health facilities.

54.

Costs of Education in the Health Professions. Parts I and II. Washington: National Academy of Sciences, Institute of Medicine, Jan. 1974. 284 pp.

Here are the results of an 18-month study to determine the average annual costs of educating students of medicine to the M.D. degree and students to osteopathy, denistry, optometry, pharmacy, podiatry, veterinary medicine, and nursing to the first professional degree. Included are the study group's recommendations for an endorsement of federal support for health professional schools as "a national resource," appropriation of capitation grants in such a manner as to make them a "dependable source of income" for the schools, a capitation formula that will maintain current enrollments rather than expand them, and grants based on numbers of graduates rather than numbers of students.

55.

Crocker, Anna R., and Overpeck, Mary D. *How Health Professions Students Finance Their Education.* Washington: Government Printing Ofice, 1973.

A nationwide survey to determine how about 14,000 students in the health professions of medicine, osteopathy, denistry, optometry, pharmacy, podiatry, and veterinary medicine financed their educations during 1970-1971 school year. The findings show the distribution of health professions students by family income, by father's occupation and education level, and by size of home town. Other tables and charts reveal the average expenses, sources of income, relationship between income and expenses, and average amount of indebtedness.

56.

Dasco, Michael M. "Training of Allied Health Professionals and Physicians' Assistants." *Bulletin of New York Academy of Medicine* 46:1107-1111, Dec. 1970.

Problems and benefits from the introduction of the physician's assistant into the spectrum of the health professions are presented. He points out that the function of PA is an ancillary medical activity and that the community colleges could produce a useful assistant of limited operational scope in two years. As the number of new programs grows, the courses must be designed to allow the students free upward and lateral mobility, and licensing and accreditation must be spelled out within the code accepted by the medical profession for assistants to the primary care physician.

57.

Davis, Louis E., and Andrews, Robert B. "The Health Care System Looks at Allied Health Personnel." *Clinical Obstetric Gynecology* 15:305-318, June 1972.

The authors first discuss the general principles underlying the structure of effective jobs and effective work systems and then offer the additional information needed to apply these principles to health care. They take the point that in health care systems, functions and tasks are tightly connected and thus the redesign of system structure and organization is a prerequisite to the creation of new jobs or occupations. In turn, analyses of technologic and social systems as well as societal environmental factors, forecasts of future developments in health care delivery, and thoughtful evaluation are required, aided by experimentation. The decision by a physician to set apart some of his or his nurse's tasks and thereby create a role for a helper—be he a paramedic or an aide—may be a means for acquiring more personnel but will do little good in terms of broader needs. The choice is not between medical helpers and medical technicians; the choice is among carefully examined alternatives for structuring an integrated health care service.

58.

Dean, Winston J. "State Legislation for Physician's Assistants: A Review and Analysis." *The P.A. Journal* 3:30-40, Summer 1973.

In his analysis of the present statutory status of physician's assistant, the author explains the two statutory forms used to grant legislative sanction to physician's assistant—the general delegatory statue and the regulatory authority statute—and points out the advantages and disadvantages of each. He reviews some of the potential problems associated with the employment of these workers. He strongly suggests that states which have passed legislation should evaluate the utilization of physician's assistants under the law and consider the interests of consumers, employers, educators, the physician's assistants, and other health professionals. Included in the article is a chart—by state—which reveals at a glance all factors of the author's analysis.

59.

Dellegar, Willard E. *A Study to Verify the Need for Allied Health Technology Teachers in California*. San Diego: San Diego State College, Feb. 1972 (mimeo). 116 pp.

A study for a teaching degree program to produce health technology instructors for California's community colleges, presented to the Coordinating Council for Health Services in San Diego and Imperial Counties. Existing programs were reviewed (dental assistant, radiologic technology, inhalation therapy, biomedical technology)—as a basis for the recommendation that San Diego State College take the lead to inaugurate the degree program. The main thesis is that community colleges have a greater understanding of the teaching of occupation-related skills and, since there is a shortage of allied health technicians, a teaching degree program is warranted. Appendices include the survey form used and an outline of the results of the study, with proposed course content for the bachelor's degree in allied health technology.

60.

Detmer, L. M. "Paving the Way for New Professionals." *Journal of the American Hospital Association* 46: 64-67, July 1972.

New careers in the health industry will necessitate innovative thinking and experimentation with new health care delivery systems. Since, as the author says, health care is a right for all persons rather than a privilege, a change must occur in the use of manpower so that comprehensive health services can be provided. He raises six major issues which should be recognized and changed: the reliance on the physician as the primary health care provider; the quality of health care; who should be in charge of health care services; what is the future direction of medical education; the need for deemphasis of higher education; and the licensure of health personnel. In the final analysis, the very least health professionals, educators, and health care administrators can do to pave the way for new professions is to encourage demonstration and evaluation of new uses of manpower resources to determine their relative value in providing increased access to organized health care services, their contributions to improvement of the quality of care, and their economies in terms of dollars and efforts invested by the individual, as a health service client, and the community.

61.

DiBiaggio, John A. "PANMED: A Multidisciplinary Approach to Televised Continuing Education for Health Professionals." *Journal of the American Dental Association*. 82: 151-153, Jan. 1971.

Describes the participation of Kentucky's colleges and professional organizations of pharmacy, allied health groups, nursing, medicine, education, dentistry in a television series entitled PANMED. The results of a survey of Kentucky dentists regarding the first four shows is reported. The multidisciplinary approach to televised continuing education for the health professionals is seen as having the potential advantages of permitting the assignment of prime television time for an ongoing series and the narrowing of the knowledge gap between the various health disciplines.

62.

Dickinson, Wanda. "Allied Health Education Through Community Colleges." *AORN Journal* 16: 51-59, Aug. 1972.

The author points to the growth and specialization in the health occupations and to the development of allied health programs in the community college. Concern is expressed for the manner in which these programs evolved and for the duplication and lack of standardization which exists in many of them.

63.

Directory of Colleges with Active or Planned Mental Health/Human Services Programs. Baltimore: The Johns Hopkins University, Center for Human Services Research, Spring 1974 (mimeo).

A listing of colleges with two-year associate degree mental health programs, alphabetically by state in the first part and alphabetically by name of college in the second part. In each case, the name of the director of the program is included.

64.

Directory of Self-Instructional Materials in Medical Education. Supplement. Self-Instructional Materials Project. Chapel Hill: North Carolina School of Medicine, Health Sciences Consortium, July 1973. 80 pp.

Lists of health science packages, supplementing the September 1972 Directory. Subjects covered: biochemistry, community health workers, emergency and first aid, endocrinology, epidemiology, gynecology, medical technology, nursing, obstetrics, packages for patients, pediatrics, pharmacology, pharmacy, physical therapy, population and family planning, psychiatry, surgery, teaching and communication.

65.

Directory of Self-Instructional Materials in Medical Education. Self-Instructional Materials Project. Chapel Hill: University of North Carolina School of Medicine, Health Sciences Consortium, Sept. 1972. 159 pp.

A listing and outline of available self-instructional units produced by health sciences faculties to give students an accountable competency-based system of instruction which can be individualized and self-paced (Thus students can participate in more effective programs which have open enrollment, flexible scheduling, and therefore save learning time. Each unit contains instructional objectives, practice exercises, feedback to the student, a post-test, and attitudinal measures.) The Directory explains the criteria used for the listing of the packages and how to obtain materials. Listings are in two parts: (1) those packages prepared for the medical school curriculum, by subject, alphabetically; (2) those prepared for the allied health areas, by specialty area—dental hygiene, medical office procedures, medical technology, denistry, nursing, physical therapy, and radiologic technology. Sub-arrangement in both parts is alphabetical by title.

66.

Documents Related to Health Manpower Planning: A Bibliography Preliminary Report. Washington: Department of Health, Education, and Welfare, Division of Manpower Intelligence, Jan. 1974.

An extensive bibliography of current publications and other documents pertinent to health manpower planning and related activities. All of the 1550 items are coded for identification and classified by subject, occupational category, and geographic category. Main divisions are titled (1) Methods and Procedures; (2) Population and Area Characteristics; (3) Health Care Needs, Programs, and Facilities; (4) Health Manpower Resources and Requirements; (5) Health Manpower Employment, Utilization, Regulation; (6) Education and Training; (7) General (non-Health): Economics, Manpower, Welfare; (8) Information Systems, Methods, and Sources.

67.

Dolfman, Michael L., and Others. *New Directions in Allied Health Manpower: The Case for the Generalist*. Philadelphia: Temple University, 1973 (draft). 22 pp.

This study presents a case for the training of generalists who can move laterally and fill a variety of roles within the allied health field, rather than the present system of training assistants for given specialties. It also recommends that the primary site of such training be the community and junior college and that all graduates of the program be awarded an associate's degree. The study employed mailed survey questionnaires to (1) currently employed sub-bachelor's degree allied health workers and students enrolled in sub-bachelor allied health programs and (2) employers of allied health workers (physicians, dentists, hospital directors of personnel) in Pennsylvania. The report tabulates and comments on the findings.

68.

Dunlop, John T. "Some Facets of the Economics of Health Care Delivery." *Journal of Medical Education* 45: 133-138, March 1970.

The author identifies five aspects of present medical care arrangements which are open to change: research, financing of care, capital flow, development of paramedical-type personnel, and the delivery system. He says that perhaps ten years from now there will be a new form of medical care system in the United States and that the university should provide the leadership to pull together the diffuse and separate developments relating to medical care.

69.

DuVal, Merlin K. "Allied Health Manpower from the Federal Viewpoint." *Journal of Allied Health*, Introductory Issue, Nov. 1972.

In the discussion of the explosive growth in the allied health professions, the author mentions that use of devices such as licensure, certification, and accreditation must provide for a flow of qualified personnel into the health field; and the health occupations must all fit together in some orderly manner. He emphasizes that the manpower pool is simply not great enough to permit anything but the most efficient organization of services and warns the Conference on Certification that concerted action on a wide range of health proposals before Congress is essential to help the professions improve the quantity and quality of service to the American public.

70.

Edgecombe, Wallace I. "A Community College Dental Clinic." *Community and Junior College Journal* 44: 32-33, March 1974.

Hostos Community College of the City University of New York is the first of the CUNY colleges to be deliberately placed in an economically depressed community—the South Bronx. To provide the dental hygiene students with the requisite clinical experience, the college opened a clinic (bilingual, since the surrounding community is mostly Hispanic) which provides dental examinations and teeth cleaning free of charge to the residents of the neighborhood. The author describes the program students must pursue to become a dental hygienist and the reaction of patients for the work being done at the clinic.

71.

Educating for the Health Team. Washington: National Academy of Sciences, Institute of Medicine, Oct. 1972. 29 pp.; appendix 72 pp.

A report of the Conference on the Interrelationships of Educational Programs for Health Professionals. Includes recommendations at the administrative, teaching, and national levels. The appendix reproduces papers by William H. Stewart("The Educational System for Health Professionals: Its Incongruities") and by Eleanor C. Lambertsen ("Interdisciplinary Education: Why and How"). It includes, in addition, the conference proceedings and a list of participants.

72.

Education in the Allied Health Professions. A Recurring Bibliography. Columbus: Ohio State University, School of Allied Medical Professions. Annual.

Lists articles which focus on education in the health professions as retrieved by the vocabulary of the Medical Literature Analysis and Retrieval System (MEDLARS). The bibliography is divided into these categories: Allied Health Personnel, Community Health Aides, Dental Assistants, Dental Hygienists, Dental Technicians, Dietary Services, Dietetics, Health Manpower, Health Occupations, Hearing, Hospital Administration, Hospital Food Services, Inhalation Therapy, Laboratories—Dental, Medical Illustration, Medical Records Librarians, Medical Secretaries, Nutrition, Occupational Therapy, Operating Room Technicians, Pharmacists' Aides, Physical Therapy, Physicians' Assistants, Psychiatric Aides, Public Health Administration, Schools—Health Occupations, Social Service—Psychiatric, Speech, Students—Health Occupations, Technology—Dental, Technology—Medical, Technology—Pharmaceutical, Technology—Radiologic. In addition, the publication carries an alphabetical author section.

73.

Education in the Health Fields for State of Illinois. Volume 1. Springfield, Ill.: Board of Higher Education, June 1968. 79 pp.; appendix 84 pp.

Description, analysis, and recommendations for education in the health care fields in Illinois. The implication in this report is that as the system of health care changes so must the personnel and the training system. Includes new roles in health care that might be developed. Appendices prepared by Irene R. Turner: "Selected Characteristics of Illinois and Analagous States" and "Needs in the Allied Health Occupations." Estimates of needs are based on population factors, present staffing, and attrition rates.

74.

Egelston, E. M. "Licensure—Effects on Career Mobility." *American Journal of Public Health* 62: 50-53, Jan. 1972.

Health manpower is a major factor in the provision of health care. The main problems affecting health manpower relate to the supply, quality, geographic distribution, and use of personnel. Many forces other than licensure of personnel contribute to solutions of these problems. Wages and working conditions, requirements of educational institutions, location and standards of health facilities, and administrative and organizational patterns of providing services are significant factors related to the resolving of manpower problems. Licensure of personnel, however, affects each of these problems. To the extent possible, the author concludes, licensure laws should contribute to sound solutions and not constitute obstacles to the delivery of health services.

75.

Eichenberger, Ralph W. "Total Health Care. The Team in Medical and Allied Health Education." *Journal of Kansas Medical Society* 72: 17-21, Jan. 1971.

The author discusses the three years' experiences with all-student teams of medical and allied health professionals at the University of Kentucky and suggests that institutionalization of the team approach to health care delivvery will only become a reality when it is seriously introduced at a graduate level of education for all the team members. He concludes by saying that perhaps what is needed is primary care team residency in medical and allied health education.

76.

Ellis, Roy G. "Education of Future Health Personnel." *Australian Dental Journal* 17: 70-72, Feb. 1972.

In a commemoration address at the University of Adelaide in 1971, the author commented on the pressures and forces which are influencing education of health personnel and the systems of delivery of health care in the United States and Canada. The address is reproduced here. Among other contentions, he points out that a socio-political phenomenon has produced a new climate in which the health professions must re-examine their practices and adjust to new patterns in society. With the general acceptance of the concept that health care is a basic human right, he states that the university cannot brush aside community needs and concentrate on academic excellence and notes items which should be of concern to university administrators at this time.

77.

Environmental Health Program. Bayside, N. Y.: Queensborough Community College, Department of Biological Sciences, June 1973. 27 pp.; appendices 175 pp.

An outline of a curriculum proposal leading to an Associate in Science (A.S.) degree. The program is designed to prepare students for positions as technicians or assistants in industrial, governmental, health care, urban affairs, and educational agencies concerned with environmental health, public health, and community interaction; and for transfer to an upper division college for a baccalaureate degree. Appendices contain survey forms and notes communications and interviews related to the survey.

78.

Equivalency and Proficiency Testing. Washington: Government Printing Office, n.d. 83 pp.

A descriptive compilation of existing testing programs in allied health and other health occupations. It reviews testing in occupations in the medical laboratory field; federal and state licensure requirements for personnel in the health occupations or for laboratories; use of proficiency tests to provide a degree of upward mobility, as well as to determine job placement in particular jobs. It also provides an evaluation of old testing methods and the development of new ones in other fields. In addition, it includes a selection of 108 annotated references, grouped under headings such as health manpower and career mobility, testing nurses, granting academic credit by examination, transfer from military to civilian health fields, and licensure.

79.

Estes, E. Harvey. "Medical Education and Medical Care in Underserved Rural Areas." *Journal of Medical Education* 48: 118-120, Dec. 1973.

Provision of primary care to rural areas involves the wide dispersal of personnel services and personal concern. This article reports on a system tried out in two small isolated communities in North Carolina, based on community health workers recruited from the community itself.

80.

Exploring the Future of Health Care. Syracuse: Syracuse University, Maxwell School of Citizenship and Public Affairs, 1973. 45 pp.

A monograph, one of the Maxwell School of Citizenship and Public Affairs Summer Lecture Series publications, which lays out the current and future challenges of health care. Lecturer Walter F. Mondale ("Advances in Life Sciences: Their Ethical, Legal, and Social Implications") and panelists discussing his presentation explore the vast potential for both good and evil in the rapid changes sweeping across medical technology. Herman Somers ("The Delivery and Financing of Health Care: Movement and Change") and the panelists, commenting on his remarks, discuss the current status of efforts to provide the necessary institutional framework, manpower, supply, and financial support for adequate health care.

81.

Farley, Marilyn. "Media Applications in Medical Education." *Educational Broadcasting* 7: 15-20, March/April 1974.

Presents the activities of six university instructional media departments on the trends their directors note toward individualized instruction, education technology (or programmed instruction), and continuing education programs, on technological advances they would like to see, and on equipment they expect to purchase. The six which use TV include Temple University Health Sciences Center (Philadelphia), California Medical Center (San Francisco), Ohio State Univeristy's College of Medicine (Columbus), Medical College of Virginia (Richmond), Duke University Medical Center (Durham, N.C.), and Indiana University School of Medicine (Indianapolis).

82.

Farrington, J.D., and Hampton, Oscar P. Jr. "A Curriculum for Training Emergency Medical Technicians." *Bulletin of the American College of Surgeons* 273-276, Sept./Oct. 1969.

This article presents an outline for 24 three-hour sessions (topic, content, and objectives), useful for those interested in instituting courses for training emergency medical technicians. In addition, the authors recommend printed material for instructors and for students, reference material for students, audio-visual aids for each of the sessions, and the equipment necessary for the instructional and practice sessions.

83.

Freymann, John G., and Springer, John K. "Cost of Hospital-Based Education." *Hospitals* 47: 65-7, March 1, 1973.

A report on the study commissioned by Hartford (Conn.) Hospital to answer this question: What would it cost the hospital to maintain its current level of services if it did not have an educational program? The main finding, at the completion of the study, demonstrated that, if all education programs were abolished, it would cost more to provide the same quality of essential hospital services.

84.

Gartner, Alan. "Health Systems and New Careers." *Health Services Reports* 88: 124-130, Feb. 1973.

The author describes the current stage of "New Careers" and then discusses the areas ripe for new developments. Among these areas he indentifies the building of career ladders (including jobs, training, education, certification, and licensure) that reach to full professional status as to role, pay, and recognition; the effect of new career designs upon service design and productivity; and the impact of new career designs upon the professional.

85.

General Plan for Meeting Allied Health Manpower Needs in Alabama. Birmingham: Regional Technical Institute, n.d. (mimeo). 6 pp.

In process of development by the Regional Technical Institute for Health Occupations at the University of Alabama at Birmingham—a cooperative endeavor by the director in the Institute and administrators of junior colleges. The plan calls for the junior colleges to offer the general educational portions of the allied health curricula (time: one year plus one quarter) and for the Institute to give the specialty experience. Student would start at the junior college, transfer to the Institute, and then return to the college to complete the requirements for the associate degree.

86.

Gilliland, J. Richard. "Maximizing Student Success." *Community and Junior College Journal* 44: 1315, March 1974.

The author believes that a systematic approach to planning curriculum and instruction for health career programs in the community and junior colleges calls for commonality of courses while retaining individuality of instruction.

He says that the use of core and cluster designs combined with the modularization of courses and the use of techniques recognizing individual learner differences can be combined to provide student-centered health career programs that maximize student mobility, achievement, and career opportunities.

87.

Gilpatrick, Eleanor. *Suggestions for Job and Curriculum Ladders in Health Center Ambulatory Care. A Pilot Test of the Health Services Mobility Study Methodology.* New York: Hunter College and The Research Foundation, City University of New York, 1972.

This document explains the approach of the Health Services Mobility Study and sets the methodology within a framework of current manpower problems in the health services industry. It discusses the general results of the pilot test and presents the actual task sequences identified by the method and the related curriculum content requirements. It also discusses application of the results in job restructuring and curriculum and presents job ladders that require job restructuring and redesigned curricula. It concludes with comments on general policy and describes the spin-off applications of the method in performance evaluation and curriculum design. Useful for anyone concerned with providing upward mobility and/or relieving upper level shortages and for those concerned with providing the education for health care occupations. The actual content of the pilot test titles and tasks and the recommended ladders have generalizable relevance for those responsible for providing upward mobility for personnel involved in health care delivery.

88.

Gloor, Robert F., and Eichenberger, Ralph W. "Team Learning in Community Medicine for Medical and Paramedical Students." *Public Health Reports* 85: 558-561, June 1970.

Using the community as a laboratory, four multidisciplinary teams of students of allied health sciences at the University of Kentucky's Medical Center each joined a medical student of the university engaged in a senior clerkship in community medicine and helped analyze the health status of the community in which he was living and studying. This article presents details of the joint experiment. The author indicates that an evaluation of this team approach revealed the importance of a team leader. In the teams where the medical students failed to assume leadership, the quality of the teamwork was barely adequate, and the attitudes of the team members toward their experience were less positive.

89.

Golden, Archie S., and Others. "Non-Physician Family Health Teams for Health Maintenance Organizations." *American Journal of Public Health* 63: 732-736, Aug. 1973.

The authors describe the program developed by the East Baltimore Community Corporation and the Johns Hopkins Medical Institution for three level non-physician family health teams—with built-in career mobility. Objectives of the training program are explained and the curriculum outlined. Designed for use in any present or proposed health care system.

90.

Goldstein, Harold M., and Horowitz, Morris A. *Hiring Standards for Paramedical Manpower*. Boston: Northeastern University, 1968.

Contains data on hiring requirements, job performance, and educational and professional backgrounds of employees in hospitals, in the Greater Boston Area in selected allied health occupations. In addition, the study gives information on the general characteristics of the occupations, such as promotional possibilities and training on the job. The focus of the study involving 20 hospitals and 524 workers in 22 allied health occupations was on defining realistic job requirements for allied health personnel.

91.

Goldstein, Harold M., and Horowitz, Morris A. "Health Manpower Shortage or Surplus." *Journal of Allied Health* 3: 93-99, Spring 1974.

A review of some of the findings and conclusions resulting from studies completed by the Center for Medical Manpower Studies at Northeastern University (Boston) and sponsored by the Manpower Administration, U. S. Department of Labor on the subject of paramedical manpower. The authors state that a shortage of health workers does persit and that if ambulatory services and extended care facilities continue to expand at the expense of in-hospital patient facilities, adjustments must be made in programs to accommodate the educational needs of those who will care for the aging patient.

92.

Goldstein, Harold M., and Horowitz, Morris A. *Restructuring Paramedical Occupations: A Case Study*. Boston: Northeastern University, 1971.

An analysis of the duties and functions of allied health personnel in a single hospital (Cambridge Hospital, Cambridge, Mass.) and of the problems encountered when a hospital introduces basic changes in its occupational structure. The functions for each occupation are divided into levels of difficulty, according to reports by the physicians, nurses, and specialists within each category. The study points up legal, institutional, and other barriers that have impeded the recommended changes in the Cambridge Hospital and which might impede similiar changes in other hospitals.

93.

Graham, John R. "Systematic Evaluation of Clinical Competence." *Journal of Medical Education* 46: 625-629, July 1971.

This article describes behavior expected in a clinical clerkship together with a means of reporting such performance. Included is a clinical performance checklist as well as a description and discussion of other parts of the form used by the faculty. The detailed form is distributed to all students at the beginning of any clerkship experience so that they know the parameters on which they will be evaluated by the faculty. At the outset, students are asked to do a self-evaluation which, combined with an evaluation at the end of the clerkship, becomes a part of the total departmental summary report on their performance. Self-evaluation combined with faculty ratings on clinical competence is regarded as a systematic and careful evaluation of student competence but a time-consuming, detailed task.

94.

Graham, Robert, and Royer, Jerry (eds.) *A Handbook for Change: Recommendations of the Joint Commission on Medical Education*. Rolling Meadows, Ill.: Student American Medical Association, 1973, 126 pp.

A handbook helpful to those interested in the process of change in medical education. Section 1 presents the assumptions under which the Commission operated; Section 2 summarizes all Commission recommendations, grouped according to issue areas; Section 3 contains the complete set of 53 Commission recommendations. These are arranged by topic area—Major Issues in Health Care, Medical School Admissions, Educational Environment, New Instructional Methodology, Curriculum, Evaluation, Graduate Education, and Continuing Medical Education—and include both a brief rationale for each recommendation and a brief bibliography. Section 4 includes dissents (from Commission members) to the recommendations as stated. The apendix reproduces four papers which cover the history and development of medical education, the psycho-social development of medical students, an example of a curriculum, and an outline of tactics for institutional change.

95.

"Grants for Training in Emergency Medical Services." *Federal Registrar* 39: 15012-15014, April 29, 1974.

A reproduction of Subpart V, which has been proposed as an addition to Part 57 of Title 42, Code of Federal Regulations. This new subpart will establish regulations implementing section 776 of the Public Health Service Act. This Act authorizes the Secretary of Health, Education, and Welfare to make grants to schools of medicine, dentistry, osteopathy, nursing, training centers for allied health professions, and other appropriate educational entities to assist in meeting the cost of training programs in the techniques and methods of providing emergency medical services.

96.

Gruver, Gene Gary. "College Students as Therapeutic Agents." *Psychological Bulletin* 76: 111-127, Aug. 1971.

The author reviews and comments upon many studies conducted by others on the use of volunteers or nonprofessionals, with varying levels of training, motivation, and socioeconomic status, as mental health workers. Some studies reveal that college students are especially desirable as assistants; they often use a naive, commonsense approach to their encounter. Studies based primarily on observation and clinical impressionism suggest that college students may be useful as therapeutic agents; at the same time, however, these students involved in a helping relationship exhibit personality changes not unlike those effected by more traditional psychotherapies. The author concludes that the use of nonprofessionals in general and college students in particular offers promise in the effort to provide more complete mental health services to an ever increasing population. He says, however, that researchers must move quickly with sound research designs to establish a firm empirical basis for justification of the nonprofessional as well as for student development in working with distressed individuals.

97.

Guidelines for Transfer. Recommendations of the Joint Committee on College Transfer Students. Chapel Hill, N. C.: University of North Carolina, Oct. 1973, 19 pp.

Articulation guidelines for student transfer in North Carolina colleges and universities in areas of admissions and curricula (mathematics, physical education, business, fine arts) and in transferability of credit obtained through varied grading systems and atypical methods. (In 1972, of more than 9780 transfer students, 3354 transferred from two-year to senior institutions.) The recommendations emanate from a Joint Committee on College Transfer Students, sponsored by North Carolina Association of Colleges and Universities, North Carolina Association of Junior Colleges, State Board of Education, and the University of North Carolina.

98.

Gullion, Christina, and Gilpatrick, Eleanor. *The Design of Curriculum Guidelines for Educational Ladders Using Task Data. A Working Paper of the Health Services Mobility Study.* New York: Hunter College and The Research Foundation, City University of New York, July 1973.

Covers the general problems and issues involved with existing curricula which prepare for the health occupations, with specific attention to jobs at the professional, technologist, and aide levels in diagnostic and therapeutic radiology, nuclear medicine, and ultrasonics. Sets out the HSMS goals for the curriculum guidelines, provides the theoretical framework for the methodology, presents the HSMS method for preparing curriculum guidelines utilizing HSMS task data, and also discusses the possible impact of the HSMS curriculum work. Appendix A presents a summary of the task analysis and job ladder methodology; B offers institutional procedures for curriculum approval. (This document is one of a series of working papers and research reports of the Health Services Mobility Study, which has been in existence since 1967 under the sponsorship of the City University of New York, with funds provided by the federal government.)

99.

Hamburg, Joseph. *Allied Health I: Manpower and Education Needs in Selected Professional Fields*. Southern Regional Education Board, 1973. 33 pp.

This paper reviews some of the significant social changes which have been factors in the promotion of allied health education. It considers in detail seven disciplines, citing numbers and variety of personnel and listing recommendations for the several areas. The disciplines covered are the following: clinical laboratory, radiologic allied health, respiratory therapy, medical records, dietetics and clinical nutrition, health education, and emerging professions. The last mentioned encompasses a variety of personnel being trained to provide support for the practicing physician, usually in the delivery of primary care.

100.

Hamilt, Milton W. "Problems and Trends to Be Faced as Allied Health Professions Evolve." *Hospital Management* 112: 20, Aug. 1971.

The author first presents the trends in the allied health professions—those which have split off from the established health professions of medicine and nursing: growth in education programs, development of stratification, and upgrading; development of new professions. He then cites these problems: lack of coordination among the programs, duplication and overlapping of the professions, overprofessionalization, decreasing public confidence in the complaint of personnel shortages, high costs of education, and need for team leadership in developing the team approach to medical care.

101.

Handbook for Vocational and Technical Educational Planners. Topeka: Kansas State Department of Education, Division of Vocational Education, Jan. 1973, 95 pp.

Includes 15 data tables illustrating the net subprofessional manpower needs in Kansas (12 tables): the demand for upgrading training (one table); student interest ratings of vocational and technical programs (one table); and populations of potential students (one table). Each section presents the purpose, limitations, major assumptions, scope, and procedures. This project was undertaken with the cooperation of the Department of Adult and Occupational Education, Kansas State University—popularly called K-MUST.

102.

Hapgood, David. "The Health Professionals: Cure or Cause of the Health Crisis?" *Hospital Topics* 47:24-26, Nov. 1969.

The author points out that the crisis in the American health industry is in large part an unnecessary one, artificially induced by those who control the industry—an interlocking group of professional guilds. These health-industry guilds prevent the competitive workings of supply and demand by their control over entry into the health professions. He maintains that the diploma and the license are the fences erected by the guilds to produce shortages of medical manpower profitable to those few allowed through the gates. He states that the political arena is where the essential battle between the guilds and the American people will have to be fought; and a lot can be done to change the existing order if the political leadership—on the state and federal level, especially—can muster the will and the power.

103.

Harvey, John C. "Planning for Career Ambulance Profession." *The Journal of the Medical Society of New Jersey* 70:589-591, Aug. 2973.

Discusses the development of a new paramedical profession and describes a sophisticated training program titled Dunlap Curriculum for Emergency Medical Technicians. This course is the standard at present for the training of ambulance drivers, attendants, rescue personnel, and others who provide emergency medical care at the scene and enroute to the hospital or other emergency facilities.

104.

Hatch, Thomas D. "Allied Health Manpower: Education and Training for New Demands." Paper presented to the National Manpower Advisory Committee of the U. S. Department of Labor, June 16, 1972 (mimeo). 32 pp.

Reviews the current aspects of major allied health manpower problems, the solutions that appear to be desirable, and the implications of these developments for continuing programs in support of allied health manpower. Discusses health manpower objectives, quality of the health manpower work force, educational efficiency, opportunities for career advancement, and medical care costs.

105.

Health Careers: A Guide to Educational and Training Programs in the Metropolitan Washington Region. Washington: Metropolitan Washington Regional Medical Program, 1973, 26 pp.

Here is basic information on professional and technical health related programs available at academic and clinical institutions in the Washington area. Part I defines the possible careers: administrative, clerical, technical, nursing, and post baccalaureate level. Part II, in table formation, notes all the health career programs—giving the program title, institution, admission requirements, degree or certificate obtainable, length of program, tuition, and institution affiliations for clinical training. In Part III, the academic institutions and clinical facilities are listed, with names and addresses of those in charge of the career programs in each center. A reference for guidance counselors and prospective health workers in the region.

106.

Health Care for the Forgotten Fifth. Washington: National Urban Coalition. Health Manpower Development Program, 1971. 40 pp.

This report presents the work of the Health Manpower Development Program in its effort fo fund or support activities that encourage disadvantaged and minority students to enter health careers, that train minority community residents for paraprofessional careers, and that persuade trained professionals to work in low-income and minority areas—all to help meet the need for primary health care services. The HMDP has funded five regional health manpower consortia, 17 community health fellowships, five paraprofessional programs, 29 student programs, and two special programs dealing with health issues. All the above-mentioned activities are described in the publication.

107.

Health Manpower Distribution Project. Washington: Government Printing Office, 1973. 36 pp.

Includes recommendations for the National Health Council for a national program (to be initiated by Council staff) to encourage students still in training to practice in geographic areas of need. In addition, contains guidelines for local/regional demonstration projects to alleviate health manpower maldistribution in rural and inner city areas. These proposals were the result of the combined thinking of a task force of 26 health manpower experts who under sponsorship of the NHC, met in Memphis, Tenn., in January 1973. Appendices in the publication give names of members of task force and other participants; also the agenda for the meeting.

108.

Health Manpower Education Conference. Los Angeles: California State University and Colleges, 1973. 119 pp.

This conference report contains addresses in the area of allied health: among them, John Wong, who underscored the primary need for information and planning; Ruth Roemer, who reviewed constraints placed by licensure, certification, and academic accrediation; Gordon Duffy, who discussed fiscal support and legislative scrutiny and urged the establishment of a planning group led by the educational system; and Charles Lewis, who stated future trends in health care delivery and discussed implications for health manpower education. In addition, the publication reproduces the report of the six task forces, citing two major areas of general agreement

—(1) the need for a reexamination of curricula to resolve the issue of core or noncore components and (2) the need of cooperation among a wide variety of people involved in the health area. General issues presented included these: What should be subject to "system" determination? and What resources are needed? One obvious need—continuing education.

109.

Health Manpower Training and Distribution in Massachusetts. Boston: Office of Comprehensive Health Planning, June 1973. 24 pp.

A study by the Governor's Advisory Council of three issues regarding health manpower in Massachusetts: training, credentialing, and distribution. The recommendations in the report will be a basis for state policy regarding health manpower development.

110.

Health Occupations Competency Survey. New York: State Education Department, Bureau of Occupational Education, 1973. 76 pp.

An examination of the vocational process relating to the entry level for six categories of health care workers: nurse assisting, therapy assisting, environmental health assisting, community health assisting, medical/dental assisting, and emergency assisting. Conducted by questionnaire and visits to health and environmental service institutions, the survey reveals that salary level is a primary barrier for both initial employment and job retention. Other barriers: lack of foreseeable upward mobility, poor skill training, and lack of communication skills. Of greatest importance in educational preparation: understanding of oral and written instructions and simple medical terminology. Includes tables showing the rank order in importance of job duties for each of the six health assiting clusters.

111.

Helm, Carol J., and Others. "Health Aides: Student Involvement in a University Health Center Program." *Journal of American College Health Association* 20:248-251, April 1972.

This paper highlights several aspects of the peer health-aide program, started in 1957, which functions as a vital part of the encompassing health program at the University of Nebraska Health Center. The author explains how the utilization of nonprofessional community health aides can improve communications between students and health professionals, reduce the economic factors of health facilities, and facilitate responsible student involvement in health education efforts among their peers.

112.

Hendee, William R. "A Collaborative Program in Allied Health Training." *Journal of Medical Education* 46:658-665, Aug. 1971.

A training program in radiologic technology. Participants include the Community College of Denver, the University of Colorado School of Medicine, and 14 Denver hospitals with facilities for diagnostic radiology, radiation therapy, or nuclear medicine. The college provides a core curriculum for the first year of study; for clinical training, second-year students are assigned to one of the participating hospitals. An outline for each year's curriculum is included in the article as well as a chart of the career ladder concept of education for radiologic technologists.

113.

Hildebrand, Glen I. "Guidelines for Effective Use of Nonprofessionals." *Public Health Reports* 85:773-779, Sept. 1970.

The author presents some major issues an administrator must consider in determining whether the use of indigenous nonprofessionals (aides) increases agency efficiency. These include the establishing of a sound administrative climate for developing programs using aides, of effective supervisory procedures, of good intra-agency communications and coordination, of appropriate training programs for aides, of flexible personnel guides and standards. Also important are the following: definition of the aide's role, clarification of both the salary level, and the system of timekeeping accountability of the aide's work.

114.

Hitchcock, Arthur H. "The Role of Junior Colleges and Vocational Schools in the Future of Health Care." *American Journal of Medical Technology* 36: 109-114, March 1970.

The author defines vocational schools and junior colleges and discusses the role they play in the future of health care. He explains that students in vocational schools are specialty oriented—in school to acquire a vocational specialty that will lead to a job and career. About 15% of the accredited schools have programs to study in health fields—the predominant training is at the assistant level. The junior colleges—two-year schools—group their programs into transfer and terminal categories. Terminal students in the health care field are prepared as assistants, or possibly as technicians, and enter jobs directly from the two-year school. The author concludes by saying that the extent to which the products of these schools can be effective depends in large measure upon the skill of the professional person.

115.

Hoff, Wilbur. "Resolving the Health Manpower Crisis—A Systems Approach to Utilizing Personnel." *American Journal of Public Health* 61:2491-2504, Dec. 1971.

This paper reports on a scientific approach to manpower utilization through a project being carried out in the San Francisco Bay area in a neighborhood health center and a community mental health program. The procedure is as follows: identify the agencies' health objectives; determine what must get done to the people or to the environment for optimum survival; identify what workers have to do (tasks); analyze tasks; restructure the tasks into new career ladders. Four activities will be carried on simultaneously: junior colleges will reassess their curricula; employing agencies will provide released time for trainees; work situations will stimulate and reinforce the employees; and professional associations, licensing bodies, and legal authorities will consider present standards, laws, and licenses. A final stage of the project will evaluate training programs, effects on trainees, effects on health and education agencies, and delivery of health services to consumers.

116.

Holder, Lee. "Delivery of Health Care: Implications for Allied Health Educators." *Journal of Allied Health* 2:68-75, Spring 1973.

The article addresses organization, potential, and problems in the delivery of health care, and the composition, roles, and functions of the allied health manpower concerned. There are suggestions to educators for the appropriate use of allied health personnel as members of the health care team which strives toward the goal of improved patient care.

117.

Holland, George J., and Klotz, Addie. "The San Fernando Valley Health Consortium: A Mustering of Community Resources for Health Manpower." *California Medical Journal* 116: 75-77, Jan. 1972.

Describes the origin and development of the San Fernando Valley Health Consortium, a direct result of the fact that an extreme shortage of health manpower, as well as a great need for health education of the citizens, was found to exist in the Northeast Valley. Membership is comprised of representatives from four areas: educational institutions, hospitals and health agencies, the various health professions, and consumers. The Consortium's goals: recruiting persons into academic areas, allowing them flexibility in moving up the academic ladder within a particular profession as well as laterally into related professions, and returning them to their communities well equipped to cope with the health problems of an urban society.

118.

Horner, J. T., and Others. "Health Education Curricula Based on Common Competencies." *American Journal of Medical Technology* 37: 21-23, Jan. 1971.

This study was designed to determine (1) what knowledges and skills workers in health occupations need, (2) which jobs require health knowledges and skills, and (3) common competencies across occupational areas. The authors explain the methods of research they used in carrying out the objectives. Their conclusion is that the many common competencies could well serve as a "core" curriculum for preparing health workers along with workers in other fields. The data also indicates that not all of the knowledges and skills needed by health workers are strictly health in nature.

119.

Hospital Research and Educational Trust. *Supervisory Training: The University, the Community College, and the Hospital.* Chicago: the Trust, 1971. 29 pp.

The story of a project undertaken in 1966-1967 by the Office of Continuing Hospital Education (now the Office of Continuing Hospital and Health Care Education), University of Minnesota, in collaboration with five community colleges in the Upper Midwest, to offer supervisory training to hospital personnel. It contains two appendices: (1) "Memorandum of Agreement" and (2) "Outline for Supervisory Training." The project was sponsored under a grant from the W. K. Kellogg Foundation.

120.

Husted, Frank L., and Perry, J. Warren (eds.) *Manpower Conference on Allied Health Professions Assistants.* Buffalo, N. Y.: State University of New York, School of Health Related Professions, 1970. 160 pp.

This reports on a conference of communication among allied health practitioners representing ten health professions, health educators at all levels, and federal and state representatives on this priority issue: the utilization of the allied health assistant in the delivery of health care. Within the publication are the keynote address ("Health Manpower and the Health Crisis" by Kenneth M. Endicott, M.D.) and four papers on major issues—career mobility, basic education, determinants of need, and certification and licensure. In addition, the document reproduces the workshop notes of the issues, problems, resolutions, dynamics, and recommendations prepared by the participants attending the two-day meeting.

121.

Illinois Area Health System (AHES): Annual Report. Chicago: University of Illinois College of Medicine, 1973.

Statement of the work of the first year of the Illinois AHES program. Gives staff requirements, committees, organizational structure, expenditures. Points out significant program accomplishments during the year as well as impediments to progress and initiates a sequence of steps to develop an acceptable methodology for evaluation of education programs for the health professions.

122.

Inventory of Federal Programs Supporting Health Manpower Training. Washington: Government Printing Office, 1973. 76 pp.

A compilation listing 165 separate programs through which health manpower training was assisted under federal authorities during 1972. Of these programs, 109 were supported or conducted by DHEW; 26 of these were administered by the Health Services and Mental Health Administration. More than half (56) were the responsibility of NIH and, of these, the Bureau of

Health Manpower Education administered 40. The categories which the compilation covers: legislation/authorization, program, type and method of aid, level of training, institutions supported, and funds obligated.

123.

Inventory of Health Services—SEARCH. Los Angeles: University of Southern California, 1972. 64 pp.

A tool for inventorying health service resources in the United States, developed as a result of a pilot study of referral patterns in East Los Angeles, interviews with consultants from various health and related fields, a review of pertinent source documents, and actual field testing. The materials are presented in three sections: A—facility identification; B—health services provided by the facility; and C—availability and accessibility of services offered by the facility. This tool includes a list of cooperating organizations, glossary of health service terms, and a bibliography.

124.

Jonas, S. "Some Thoughts on Primary Care: Problems in Implementation." *International Journal of Health Services* 3:177-187, Spring 1973.

Presents definitions of primary care and the dimensions of the health care crisis in general and of the primary care crisis in particular. Describes the importance of the team practice in primary care and explains the necessity of creating the social physician as team leader. Also cites some changes which appear to be necessary in medical education in order to begin moving toward a solution of the primary care crisis.

125.

Kerr, Elizabeth E., and Others. *Pediatric Assistant: A Program Development Guide*, n.d. 85 pp.

Designed to assist in the development and implementation of programs which train pediatric assistants (pediatric team members which technical-level preparation), this work will aid all health career educators and health providers committed to improving and expanding child health services. The administrative, clinical, and patient-care functions of a pediatric assistant are outlined and suggestions are presented for curriculum development.

126.

Kerr, Elizabeth E., and Others. *An Analysis of Selected Educational Programs in Practical Nursing. Final Report.* Iowa City, Iowa: The University of Iowa Printing Service, April 1970. 215 pp.

A report of the results of research findings developed from a project funded by the U.S. Office of Education and entitled *An Integrated, Longitudinal Study of Practical Nursing.* This report describes conditions, assesses the present status, and develops a profile of practical nursing, the goal being the improvement of nursing service through the improvement of the selection process, educational programs (including both curriculum and instructional staff), and better utilization of prepared personnel. Useful to those responsible for preparing practical nurses and utilizing their services.

127.

Kerr, Elizabeth E. "Health Occupations Education in Iowa." *Community and Junior College Journal* 44: 9-10, March 1974.

The author describes the health occupation preparatory programs in Iowa. These programs are administered predominantly by the state's 15 area schools (13 community colleges and two vocational-technical institutes) in cooperation with the State Department of Public Instruction. The institutions offer a total of 70 health occupations education programs of one or two years in length representing 15 different types of preparation. Greatest progress has been made in the nursing and medical laboratory fields.

128.

Keys, Fenton. "Pooling Health Training Facilities in Newark, New Jersey." *American Journal of Public Health* 64:144-148, Feb. 1974.

Discusses the activities of a consortium in Newark, New Jersey, to develop appropriate programs to meet the needs for health personnel in an urban situation. The consortium (Council for Higher Education—CHEN) consists of Medicine and Dentistry of New Jersey; Essex County College; Newark College of Engineering; and Rutgers—Newark—The State University.

129.

Kinsinger, Robert E. "What This Country Doesn't Need Is a Left Carotid Artery Technician or a Career-Based Response to the New Careers Scramble." *Journal of Allied Health* 2:10-15, Feb. 1973.

The author discusses the two governing forces which have dominated the dynamics of health care—the labor-oriented focus on health needs and open-minded economics or add-on planning. He notes that the result has led to a scramble to develop "new careers" in the health field and to a chaotic proliferation of educational programs for narrow technical specialists. Some modifications for the educational system for health technicians are recommended.

130.

Klein, Susan F. "Toward a Framework for Evaluating Health Education Activities of a Family Planning Program." *American Journal of Public Health* 61:1096-1109, June 1971.

In this paper an attempt has been made to build a framework for the evaluation of health education activities of a family planning program. The health education system of such a program consists of four components: recuritment of clients, information-giving for method selection, instruction for method use, and follow-up for continued satisfaction and continued use. The author defines these components in terms of their relationship to the five-step adoption process which the client usually experiences. She gives examples of some of the health education activities in current use which comprise each of these components. She introduces the systems concept and five types of measurement: input, output, effect, effectiveness, and efficiency. All elements of the framework are described, including a visual presentation of the framework matrix. She also outlines a general guide for selecting the measures appropriate for a given activity. Thus an evaluator, who wishes to use the framework for a comprehensive and systematic evaluation of health education activities of a family planning program, can fill in the matrix.

131.

Knoell, Dorothy M., and Medsker, Leland L. *From Junior to Senior College: A National Study of the Transfer Student*. Washington: American Council on Education, 1965. 102 pp.

This survey involves about 10,000 students, 345 two-year institutions which they entered as freshmen, and a diverse group of 43 colleges to which they transferred. Areas reviewed include student performance, individual and group factors affecting performance, curriculum problems, counseling and other student personnel service, policies affecting transfer students, and articulation and coordination. The facts, figures, and general findings resulting from the study give a fairly comprehensive evaluation of the junior college transfer function as it was being performed in the early 1960's, the years the survey was conducted.

132.

Koch, Moses S., and Hollander, Charles. "The Health Sciences Careers Program." *Health Services Reports* 87: 787-802, Nov. 1972.

Cites the objectives of the Health Sciences Careers Program (HSCP) sponsored by the Center for Allied Health Careers of The Johns Hopkins Medical Institutions. The authors indicate how a variety of programs came to be, how they might be duplicated by other institutions, and the interorganizational cooperation necessary for the success of the program. The five high school level programs under the HSCP are described: Dunbar Medi-School, School Without a Building, HSCP After-School Program, Neighborhood Youth Corps In-School Program, and Neighborhood Youth Corps Out-of-School Program. The authors point out that academic credit together with work-study stipends seem to be an ideal combination for motivating students of poverty, inner city, minority group background. The implementing agencies, funding, and primary purposes of these and other programs are presented in an accompanying table.

133.

Kramer, Ruth E. "A Core Curricular Approach in Allied Health Education." *Journal of Practical Nursing* 23:26-27, Oct. 1973.

This paper discusses the particular application of a core curriculum to the educational preparation of practical/vocational nurses and psychiatric technicians. It also reviews the results of a 1972 survey which examined the extent of the use of core curricula in California junior colleges and concludes that the majority of the programs do not use the core approach.

134.

Kuhli, Ralph C. "Accreditation of Allied Health Programs." *Allied Medical Education Newsletter*: 9-13, Nov. 1, 1973.

An account of allied health education, encompassing the history of accreditation, current accreditation programs, studies of accreditation, changes in accreditation, and the role of allied health administrators.

135.

Kuhli, Ralph C. "AMA and Allied Health Manpower." Paper presented at the School of Allied Health Professions Seminar, Center for Health Sciences, University of Wisconsin, Madison, Feb. 4, 1974 (mimeo). 16 pp.

The author reports on five aspects of the AMA and allied health manpower: History of allied health occupations, accreditation of educational programs, Wisconsin manpower needs, master plan for allied health education, and vocational education as a component of higher education. Also includes AMA accredited allied medical education programs in Wisconsin.

136.

Kulys, Regina. "Home Health Aides Program Involves Neighborhood Women." *Hospital Progress* 52: 80 passim, Feb. 1971.

A description of the home health aides program initiated in May 1969, by Holy Cross Hospital (Chicago), as a result of community needs for workers to look after home convalescents. The author explains the roles of both the hospital and the home health aide and describes means of recruiting and training mature women from the community who are interested in becoming family substitutes or home health aides.

137.

Labovitz, George H., and Orth, Charles D. "Work Conditions and Personality Characteristics Affecting Job Satisfaction of Student Interns in Extended Health Care Facilities." *Journal of Applied Psychology* 56:434-435, Oct. 1972.

A study of the performance of student interns recruited for summer employment in selected nursing homes in Massachusetts, Connecticut, and New Hampshire. The majority of the students were placed as nursing assistants and male orderlies. They completed the Allport-Vernon-Lindzey (AVL) Study of Values, the Thematic Apperception Test (TAT) for Motivation, and daily logs in which they recorded activities and rated them according to a satisfaction index. One conclusion of the study is that satisfaction and patient care improve when improvements are made in the quantity and quality of direct patient-staff interactions.

138.

Lee, Ruth. "Health Careers: Education for Living." *Community and Junior College Journal* 44:34-35.

The author offers an answer to this question: Why do students choose health careers? She says that the college-age generation are concerned with problems of pollution, regeneration, malnutrition, diseases, and mental illness. They question the relevance of liberal arts curricula. They are demonstrating that aside from making a living, health career studies are helping them find a reason and basis for daily living that a liberal arts orientation never did. She asks: Why then cannot administrators of college programs focus the wisdom of past history on present problems in a way that appeals to today's students who choose health careers?

139.

Lesse, Stanley. "Medicine Is Dead! Long Live the Health Sciences." (Editorial). *American Journal of Psychotherapy* 25:347-349, July 1971.

The author states that the expansion of the medical school program proposed in a 1971 bill to Congress would perpetuate a ponderous outdated system to such a degree that it will effectively inhibit all possibilities for a more appropriate future oriented program. He proposes that the current crash program oriented medical proposal be scrapped and be replaced by a hundred-million-dollar five-year "Health Science Preparatory Program." Part of the fund would be allocated to the development of cybernated health science diagnostic units and the bulk of the fund to schools to train qualified persons to become the teachers of the future medical academicians and medical technical experts. If the proposed program were to be implemented by 1971, the class of teachers that would train the initial group of medical academicians and medical technical experts would graduate in 1976. The first cybernated health science diagnostic units could be operational about the same time.

140.

Lewis, A. James, and Others. "Prehospital Cardiac Care in a Paramedical Mobile Intensive Care Unit." *California Medical Journal* 118:1-8, Oct. 1972.

Details of the operation of a Mobile Intensive Care Unit (MICU) program, using extensively trained firemen-paramedics, are given here. The program has been in operation in Los Angeles County since December 1969. Training includes classroom and laboratory instruction and direct clinical experience. (The didactic phase and clinical experience for a paramedic curriculum is outlined in the article.) Under the terms of the Wedworth-Townsend Paramedic Act, approved by the California State Legislature and the Governor, properly trained and certified paramedics may initiate cardiopulmonary resuscitations and defibrillate a pulseless, non-breathing patient; upon the order of a physician who is in contact with the paramedics by radio, they may administer certain parenteral medications. Experience with the program has indicated that a substantial number of needless deaths can be prevented. The author points out, however, that since most of the emergency calls are non-cardiac, a categorical mobile cardiac care unit is not justified on the basis of cost-effectivness.

141.

Licensure and Related Health Personnel Credentialing. Washington: Government Printing Office, June 1971, 154 pp.

An examination of the major problems of licensure and related aspects of certification and accreditation. The report points out the functions of professional associations and state licensing boards, the problems of foreign graduates of schools of medicine and the other health professions, the influence of licensure on geographic and career mobility, and the need for proficiency and equivalency testing and for continuing education. In addition, it presents several approaches to institutional licensure and concludes with recommendations. The apppendix includes outlines of activities supported by the Bureau of Manpower Education (NIN) and the National Center for Health Services Research. Also, there is information pertinent to the physician assistant and to selected health occupations.

142.

Lind, Amy I. "An Exploratory Study of Predictive Factors for Success in the Clinical Affiliation Experience." *American Journal of Occupational Therapy* 24:222-226, April 1970.

Presents the procedures followed and the results obtained in a study to explore various instruments and other variables, such as grade-point averages, to determine which, if any, could be used to predict success in occupational therapy clinical affiliations at the University of North Dakota. Specifically, the study was designed to compute a multiple-regression equation to predict success in occupational therapy clinical affiliations in each of four areas, namely, general medicine and surgery, psychiatry, physical disabilities, and pediatrics, to predict success in the total occupational therapy clinical affiliation program, and to investigate whether there were any differences in variables used to predict success in clinical affiliation for male and female students.

143.

Losee, Garrie J., and Altenderfer, Marion E. *Health Manpower in Hospitals. Report of Division of Manpower Intelligence*, Bureau of Health Manpower Education, National Institute of Health. Washington: Government Printing Office, 1970. 82 pp.

This report provides descriptive statistics of personnel resources in hospitals, such as estimates of number of professional and technical health personnel and other personnel employed on March 28, 1969, and of numbers of additional full-time personnel needed to provide optimum care at the time of the survey. The appendices include technical notes on methods, definitions of terms, and questionnaire items, and tables which show the various results in statistical breakdown.

144.

Lowe, Robert J., and Baker, Robert J. "Organization and Function of Trauma Care Units." *The Journal of Trauma* 13: 285-290, April 1973.

A review of several of the principles underlying the development of the Cook County (Chicago) Hospital Trauma Unit and the extension of these principles into the organization of the 40 trauma centers in the Trauma Care Program of the State of Illinois. In the establishment of the center, emphasis is placed on its organization, the team approach to patient care, utilization of the triage system (resuscitation, initial evaluation, full stabilization of critically injured person).

145.

Lynch, John M. "Allied Health Personnel in Occupational Medicine. Report of the Long Range Planning Committee." *Journal of Occupational Medicine* 13: 232-237, May 1971.

Because of the shortage of formally trained industrial physicians and nurses, these professionals must enhance their productivity by limiting their activities to the highest levels of their knowledge and skill, relinquishing to others with lesser training all tasks that the latter cen perform. These "others" have been labeled allied health personnel. This report of the Long Range Planning Committee of the Industrial Medical Association considers the need for specialized allied health personnel in occupational medicine, the possible duties to which they may be assigned in typical industrial health programs, and the problems that must be resolved if they are to be properly utilized. The article concludes with various proposals for further action by members of the Association.

146.

MacLeod, Gordon K., and Prussin, Jeffery A. "The Continuing Evolution of Health Maintenance Organizations." *The New England Journal of Medicine* 288:439-443, 1 March 1973.

Presents the history of the Health Maintenance Organizations (HMO's) and discusses the basic principles for developing an effective HMO: prepayment, a contractual responsibility between the plan and its members, an autonomous and self-governing physicians' organization, physicians' payment influenced by shared financial responsibility, integrated services, voluntary enrollment, and comprehensive coverage. Concludes with the statement that groundwork is being laid for development of manpower resources for HMO's, with several medical schools having recently established HMO-like models to serve as training sites for future practitioners.

147.

MacQueen, John C., and Eldrige, Eber. *A Proposed Organizational Structure for Providing Health Services and Medical Care in the State of Iowa.* Iowa City: Iowa Comprehensive Health Planning Council, Health Manpower Committee, 1972 (mimeo). 199 pp.

Describes an organizational structure for providing personalized health services within which new methods for delivering care can be developed to create a modern health care system. Includes the demographic data and information about physicians—for the state as a whole and for each of the 16 proposed health care regions. For each region: a data summary sheet, a map showing the health service area as well as the location of the area health service center, and the community health centers, a population information sheet, a graphic presentation of the change in population from 1950 through 1980, and a physical information sheet.

148.

Magen, Mayron S. "The Challenge and the Opportunity: Prescription for Change." *Journal of the American Osteopathic Association* 70: 758-768, April 1971.

The author states that the resolution of the health care crisis in the United States will require effective leadership in the planning of hospital organization, health care delivery, and education of paramedical and professional workers. Changes in the delivery system and in the use of personnel will be needed, and the voluntary community hospital should play a crucial role in solving the health care problem. The author's recommendations constitute a prescription for change. He deals first with objectives and then with personnel. He examines the internship and residency programs and discusses the possibility of cooperative arrangements with junior colleges to increase the number of paraprofessional workers. He believes that a division of countinuing education should be a part of the American Osteopathic's Office of Education. He concludes by proposing that the members of health care professions—and the AOA in particular—must resolve the discrepancy between the rapid mushrooming of medical science and the slow improvement in the health of the people of the United States.

149.

Mase, Darrel J. *Allied Health II: Manpower and Education Needs in Selected Professional Fields.* Southern Regional Education Board, 1973. 60 pp.

This monograph reports on eight categories of allied health education: physical therapy, occupational therapy, rehabilitation counselling, prosthetics and orthotics, speech pathology and audiology, clinical and counseling psychology, health and hospital administration, and mental health. To provide educators with some guidelines for consideration of personnel in the various occupations and professions, a brief resume with proposals regarding needs appear for each field.

150.

Maynard, Diane, and Others. "A Student Data Base: An Aid to Student Selection, Program Evaluation, and Management Decision Making." *Journal of Allied Health* 3: 114-117, Spring 1974.

Outlines the establishment of a student information system which would be helpful in the selection of students for allied health programs, in program evaluation, and in management decision-making. The components of a student data bank are proposed; the total result offers a cross-section of student characteristics. The establishment of a student data bank will require access to a computer for information storage and retrieval.

151.

McDermott, Walsh. *The General Medical Care Issue: Analysis of Alternatives for Foundation Programming.* Princeton, N.J.: The Robert Wood Johnson Foundation, 1973 (mimeo). 38 pp.

The author identifies and analyzes the forces that shape the present directions of the health care system in the United States, especially those from within the system that represent conflicts or contradictions. He outlines a set of five criteria for a satisfactory system of general medical care—which form the core of what most people desire in the way of this medical care—and shows how these overlap—get in the way of the full development of the technologic function. He also includes eleven approaches that, if pursued successfully, might lead to the restoration and maintenance of a thoroughly distributed system of general medical care. Four of these approaches that will require a change in the structure of the medical care system follow: organize a mixed public-private system of ambulatory care, regard general medical care as a stage in a physician's development, train and/or educate more than one kind of physician, and reallocate boundaries of specialties.

152.

McNeer, Lenore Whitman. "Everything You Always Wanted to Know About Mental Health Programs." *Community and Junior College Journal* 44: 25-27.

The author reviews some of the studies conducted since 1960 in manpower development in mental health. Early experiments in testing differing levels of manpower trained housewives to be psychotherapists and disadvantaged persons to be mental health aides. In 1965, Purdue University was funded by National Institute of Mental Health to begin training associate degree mental health workers, and since then more than 40 colleges have received grants for similar work. The willingness of community colleges to experiment with this new curriculum area has brought about a rapid rate of growth in the number or programs. The most recent national survey found 145 associate degree programs in the human services, of which 143 are in mental health. The author states that there is a shifting emphasis on putting mental health within the broader framework of human services. The question raised is this: Will the mental health worker be a separate and distinct profession or a special set of skills within a larger concept?

153.

Meek, Doris A. "Core Curriculum in the Health Service." *Junior College Journal* 42: 32-35, March 1972.

The author discusses some of the problems that must be faced in curriculum development leading to an integrated science, or a core course helpful to allied health education students. She states that, in any effort to change the curriculum, the employing agency has to be ready to redesign certain task descriptions and job slots to permit the employment of such an entry step health worker.

154.

Moore, Margaret L. "Control and Direction of Allied Health Education: Education for Teamwork and Independent Work." JAMA 218: 242-243, 11 Oct. 1971.

The author states that no single controlling force or influence is wise in education or service if teamwork is to be developed. She discusses in this article four primary forces which should have impact on the educational process and on the direction and control of that process. These are the following: (1) educators in institutions where programs are located who must speak to the validity of the educational process occurring in their institution; (2) the allied health professionals who have developed and expressed their professional standards at the national, regional, or state level; (3) graduates of the educational process, the practitioners in allied health who serve the consumers; and (4) the employers of the practitioners.

155.

Morgan, Margaret K., and Eilson, Dolores M. [eds.] *Whither Education for Health Care Delivery: A Florida Approach*. Gainesville, Fla.: University of Florida, Center for Allied Health Instructional Personnel, Sept. 1973. 152 pp.

A monograph which reproduces the papers and discussions given and held at a conference for Florida educators, which form a basis for planning for health care delivery. The issues discussed included trends in health care delivery; utilization of health manpower; communication difficulties between health related personnel in vocational, technical, and university programs; responsibilities for articulation.

156.

Musser, A. W. "Equivalency Testing: A Partial Solution of the Health Manpower Problem." *Journal of Medical Education* 48: 579-580, June 1973.

The use of equivalency examinations has been identified as a mechanism for increasing the productivity of health services by expediting the production of health care workers. The portal of entry into the maze of the medical system is the clinical laboratory; it is also the starting point to begin the study of the methods used by health care workers to obtain their skills and knowledge and the measurement of them. The author hopes that this beginning in the clinical laboratory will spread throughout all of medical education.

157.

Musser, Marc J. "A Public-Private Consortium: Health Care Delivery." *Hospitals* 47: 35-37, Aug. 16, 1973.

The author cites pilot projects and other innovations to suggest that a cooperative effort by governmental and private institutions may be an answer to many of the problems confronting the health care delivery systems. More than anything else, perhaps, the examples indicate what imaginative community health planners can do when they are able to depart from traditional and established patterns of operation and assess the full potential of their available resources in an objective manner.

158.

National Commission on Accrediting. *Study of Accreditation of Selected Health Educational Programs* (SASHEP). Commission Report. Washington: the Commission, May 1972. 54 pp.

Report of the Commission assigned to study the future accreditation of a selected group of health educational programs. Cosponsoring organizations: American Medical Association, Association of Schools of Allied Health Professions, and National Commission on Accrediting. Publication is divided into three main sections titled Issues, Basic Policies for Accreditation, and Conclusions and Recommendations.

159.

National Commission on Accrediting. *Study of Accreditation of Selected Health Educational Programs* (SASHEP). *Part I: Staff Working Papers*. Washington: the Commission, Oct. 1971.

Papers prepared by the staff of SASHEP to assist the members of the study commission in considering the various issues related to the accreditation of health educational programs. These Part I working papers treat structure, financing, research, and expansion as these issues relate to the problem of accreditation. In addition, one paper is concerned with alternate structures and responsibilities for a national body to supervise and coordinate all accreditation.

160.

National Commission on Accrediting. *Study of Accreditation of Selected Health Educational Programs* (SASHEP). *Part II: Staff Working Papers*. Washington: the Commission, Feb. 1972.

The Part II working papers are concerned with some of the major dilemmas in accreditation, an approach and some of the practices to be pursued in accreditation, and its relationship to voluntary certification and state licensure. In addition, the publication includes a paper which deals with issues related to the courts and the health professional associations.

161.

National Council on Community Services. *Directory and Program Guide of Community Services in Community and Junior Colleges.* Washington: the Council, 1973. 180 pp.

Alphabetically by state, this directory notes the addresses, phone numbers, and names of persons in charge of the community programs, and the different programs offered (by code). Includes several Canadian schools and one institution in Switzerland.

162.

National League for Nursing. *Directory of Career Mobility Opportunities in Nursing.* New York: the League, 1973. 218 pp.

A reference guide designed to inform readers about the status of a school and its practices regarding open curriculum opportunities. Includes all types of basic nurse preparatory programs: practical/vocational programs, diploma programs, and associate and baccalaureate degree programs. Various career mobility patterns are identified. Useful not only to potential students but also to those responsible for counseling students in the selection of educational programs. Covers schools of nursing throughout the United States and its territories.

163.

Nicholas, Donald D. "Student Health Services and Health Problems." *Community and Junior College Journal* 44:19-21, March 1974.

In this article are the results obtained from a study, undertaken in 1972 at the Center for the Study of Higher Education at the University of Michigan, to investigate the status of student health service programs and the types of health problems evident on community college campuses. The study included 630 public community colleges, with 482 returning usable instruments. Two general questions were posed: What type and amount of health service is provided? What kinds of health service personnel are employed on campus? In addition, respondents indicated which health problems or emergencies had occurred on their campus within the last five years and to what degree dropouts were precipitated by poor personal health. A tabulation shows the percentages of respondents favoring admission of applicants with specific health problems. On the basis of the findings, the author concludes that, if student health needs are to be met, most community colleges will have to turn their attention to improving student health service programs.

164.

Occupational Outlook: Montgomery and Prince Georges Counties. Baltimore: Employment Security Administration, Nov. 1972. 44 pp.

Results of questionnaires sent to employers and covering 90 occupations in such broad areas as business, data processing, health, service, technical, trades, and industrial. Usable data, received from 675 firms in Montgomery County and 570 firms in Prince Georges County, are tabulated and show job opportunities available in these counties (contiguous to the District of Columbia and densely populated) for the trainee or graduate of a community college offering a two-year curriculum. This Manpower Needs Survey was conducted by the Department of Employment and Social Services at the request of community college educational authorities of both counties, and the statistical and narrative presentations were prepared by staff members of the Research and Anaylsis Office, Employment Security Administration of the Department of Employment and Social Services, State of Maryland.

165.

Occupational Therapy Policy Advisory Committee Meeting. Summary Report. Chicago: Area Health Education System, University of Illinois College of Medicine, Feb. 12, 1974. 32 pp.

One task of the Division of Career Mobility at the College of Medicine was the design of a method of providing detailed profiles of existing skills and deficits of a candidate in the program. Thus the Evaluation Section of the Center for Education Development (CED) came to be asked to develop instruments to provide such profiles and countered with the appointment of a Proficiency/Equivalency Test Team to design a model, using one allied health occupation as the vehicle and aimed at the entry level. The target area for the model-building efforts was decided to be Occupational Therapy (OT). This publication presents the background, constraints, and development strategy in the Proficiency/Equivalency Test Project. It delineates the kind of test and the instruments to be used. Two charts in the appendix are of particular interest: Pathway for Mobility Candidate Seeking to Secure Equivalency and Occupational Therapy Proficiency Test Development Strategy.

166.

Oklahoma Health Manpower Needs 1973-1974. Stillwater: State Department of Vocational-Technical Education, Sept. 1973. 113 pp.

A statistical recording which shows manpower employment, supply, and demand for the state of Oklahoma and for its 11 regions. Table I tabulates employment in selected health occupations, Table II shows gross manpower demand, and Table III reveals net manpower demand. Table IV names the institutions training health manpower, noting occupation and number of potential graduates. The survey questionnaire and survey job descriptions are reproduced in the appendix. The questionnaire was designed to give a one-and five-year employment forecast for each occupation.

167.

Ostergard, Donald R., and Others. "A Training Program for Allied Health Personnel in Family Planning and Cancer Screening: A Preliminary Report." *The Journal of Reproductive Medicine* 7: 26-27, July 1971.

Report of an experimental and developmental training program for allied health personnel, with special concern for family planning and cancer screening. The training program emphasized two major areas: didactic instruction and clinical experience. Conclusions demonstrate that both the didactic and clinical material can be learned by those with limited medical experience as well as by individuals with no medical background.

168.

Pace, Nicholas A. "An Approach to Emergency Coronary Care in Industry." *Journal of Occupational Medicine* 15: 793-95, Oct. 1973.

An outline of the program of mobile coronary care practiced at the General Motors Corporation offices in New York. Describes the emergency medical team and the procedures the team follows. Useful as guideline for other industrial physicians who may desire to institute their own cardiac emergency program.

169.

Packhard, John M. "Regional Medical Programs in Alabama." *Journal of the Medical Association of the State of Alabama* 41: 442-442 passim, Dec. 1971.

Since its organization in 1967 the Alabama Regional Medical Program has involved the state's health care professionals and the general public in discussing solutions for the many problems faced in providing the best available medical care for all persons in the state. The author discusses the Program's main objectives: to coordinate and expand continuing education for physicians, nurses, and allied health professionals; to expand present training programs and form new ones; and to cooperate in long-range planning to improve delivery of health care, especially to the rural population and the urban poor.

170.

Parker, Alberta W. *The Team Approach to Primary Health Care.* Berkley, Cal.: University of California, University Extension, 1972. 53 pp.

In this booklet the author discusses the use of the team approach in providing primary care. She notes five characteristics which distinguish an organized, functioning team from providers operating independently: members provide care to a common group of patients; they develop common goals for patients outcome; they have assigned roles and functions; they possess a mechanism that enables all to contribute and share information essential for effective patient care; and they have a mechanism to ensure that patient care plans are implemented, services are coordinated, activities of the team are administered, and the performance of the team is evaluated. The author describes a conceptual model for the primary health care team and presents the nuclear structure of the team. She also notes the difficulties that the team approach has faced in health centers. She concludes with the statement that the team, to be successful, must receive its full share of recognition, autonomy, status, support, and evaluation.

171.

Pascasio, Anne. "Relation of Allied Health Education to Medical Education." JAMA 213: 281-282. 13 July 1970.

The author answers two questions she poses in this article: How does education of the health team occur now? and What can be done to achieve optimum relationships? Working together requires certain skills, knowledge, and attitudes, and the author states that opportunities are now provided for potential allied health and medical members of a team to learn and master specific skills. But, she says, more opportunities should be provided so that students can understand the specific skills of others as well as how all of these relate. Students need more opportunities to learn and practice together so that they eventually will be able to work with regular, adjunct, and/or substitute team members.

172.

Pennell, Maryland Y., and Hoover, David B. *Health Manpower Source Book 21: Allied Health Manpower Supply and Requirements 1950-80.* Washington: Government Printing Office, 1970. 108 pp.

A statistical compendium covering medical allied manpower, dental allied manpower, nursing manpower, environmental health manpower. (Excludes pharmacist, podiatrist, optometrist, veterinarian, professional nurse, and graduate public health personnel.) A final chapter offers allied health manpower projections to 1975 and 1980. Statistics in the appendix cover (A)—health occupations and numbers of workers in 1967; (B) trend data on educational programs at baccalaureate level or higher; (C) below baccalaureate level; (D) persons employed in the civilian labor force in health occupations and in the health services industry; (E) allied health manpower requirements indicated by various sources; and (F) inventory of federal programs that support health occupations training.

173.

Pellegrino, Edmund D. "Allied Health Concept—Fact or Fiction?" *Journal of Allied Health* 3: 79-84, Spring 1974.

Here the author points out the fundamental issues, problems, and approaches the Association of Schools of Allied Health Professions (ASAHP) must consider if the allied health concept is really to be a fact. He states that unless the professions can bring the health care delivery apparatus into congruency with the educational system on the one hand and the needs of the public on the other, the concept will become a myth.

174.

Pattison, E. Mansell, and Elpers, John R. "A Developmental View of Mental Health Manpower Trends." *Hospital and Community Psychiatry* 23: 325-328, Nov. 1972.

The need for an expanded pool of mental health manpower has resulted in a variety of unsuccessful national manpower experiments. In this article the authors examine some of the factors in their failure. The current manpower-development trend appears to show more promise, with its potential for creating a generic mental health professional. The authors urge that concomitant changes be made in the training of members of all mental health disciplines so that a continuum of manpower, instead of the current fragmentation, would result

175.

Pennell, Maryland Y., Proffitt, John R., and Hatch, Thomas D. *Accreditation and Certification in Relation to Allied Health Manpower*. Washington: Government Printing Office, 1971. 44 pp.

The emphasis of this publication is on the role of professional associations and societies in relation to accreditation and approval of educational programs and registration and certification of qualified personnel. Information presented for dental assistant, hygienist, and laboratory technician; dietitian and dietetic technician-assistant; inhalation therapist-technician; medical record librarian and technician; medical technologist; occupational therapist and therapy assistant; physical therapist and therapy assistant; radiologic technologist-technician; sanitarian and sanitarian technician. In addition, a table shows the health occupations licensed in each state in 1970, and a list notes associations recognized for their specialized accreditation of health education programs in 1970. Another table shows the designation of certification or registration of health manpower by nongovernment agencies in 1970. The authors agree that "the importance of better credentialism of new occupations and accreditation of new programs for allied health manpower is self-evident and urgent."

176.

Perry, J. Warren. "Allied Health: Dimensions, Dilemmas, and Decisions." *Journal of the American Dietetic Association* 61: 26-29, July 1972.

The author recognizes that the allied health professions are in a state of ferment and that change is the order of the day. In this article he analyzes these issues: utilization of allied health personnel, inadequate legislative authority and funding, lack of qualified faculty and instructional personnel, new settings for health care delivery. He concludes that professional educators, clinicians, and administrators must set a different set of priorities—those that reveal a deep committment to change and which will bring them to an even greater role in health planning and health service in the future.

177.

Perry, J. Warren, and Nechasek, Joseph E. (eds.) *Health Maintenance: Challenge for the Allied Health Professions*. Buffalo: State University of New York, School of Health Related Professions, 1972. 124 pp.

Proceedings of an institute designed to elicit a dynamic response on the part of the allied professions to the challenge of health maintenance.

Within the publication are the keynote address ("Health Maintenance: An Idea in Search of an Organization" by Edmund D. Pelegrino) and five presentations by representatives of medicine, denistry, nursing, DHEW, and the consumer—each directed to implications of the health maintenance concept. The booklet reproduces, also, the multidisciplinary cluster group reports covering environmental and disease prevention, acute and intensive care, and restorative and extended care. Furthermore, it includes the reports of the meetings of participants of the following individual health disciplines: dental hygiene, dietetics, medical record administration, medical technology, occupational therapy, physical therapy, radiologic technology, rehabilitation counseling, respiratory therapy.

178.

Petty, Thomas L., and Others. "A Program for Community Training in Respiratory Care." Chest 64: 2[illegible]6-240, Nov. 1973.

This report documents the initial impact of using the University of Colorado Medical Center as a training base for both intensive and rehabilitative respiratory care and of providing direct, on-site training in community hospitals in the Colorado-Wyoming region. Results from the three-year program, supported by a Regional Medical Program Grant, show that the practice of medicine in the community can be significantly altered, helping to bridge the gap between existing problems in the respiration field and the resources available to meet these problems.

179.

Phillips, Donald F. "Reaching Out to Rural Communities." *Hospitals* 46: 53-57, June 1, 1972.

The author reports on discussions emanating from a conference on hospitals and rural health services, held in December 1971, at American Hospital Association. He describes approaches to rural health care, pointing to the hospital's expanding role as a social agency. The group agreed that there is a dwindling in the number of physicians in the rural areas. It was the consensus of the conference that to get young physicians into rural communities the health team aproach, wherein allied health personnel would provide front line as well as backup support and assistance and all the resources of the community would be used, will have to be developed. There will also be a need for concerted pressure to change state legislation restricting the use of paramedical personnel.

180.

Physician Support Personnel: A Summary of Training Programs. Washington: Government Printing Office, Sept. 1972. 43 pp.

A composite and comprehensive listing of training programs (with name and address of program director) for physician support personnel. Programs are outlines by state within the following categories: Operational Programs to Train Assistants (1) to the Primary Care Physician, (2) for a Specialty, (3) for Primary and/or Specialty Physicians, (4) Federal Government Programs, and (5) Programs under Development.

181.

Points, Thomas C. "Guidelines for Development of New Health Occupations." JAMA 213: 1169-1171, Aug. 1970.

The American Medical Association Council on Health Manpower, through its Committee on Emerging Health Manpower, undertook the responsibility for evaluating the need for and proper role of specific new types of health personnel. To provide a consistent frame of reference from which to conduct the evaluation, the Council prepared "Guidelines for Development of New Health Occupations," which are reprinted in their entirety in this article. The guidelines specify the desirable steps to be taken and questions to be resolved by any group or institution developing a new health career. They were adopted by the AMA House of Delegates in December 1969.

182.

Program and Philosophy Statement for Community Health Centers. Rockford, Ill.: Rockford School of Medicine, Aug 8, 1973 (mimeo). 18 pp.

This paper discusses one new method of combining health education and health care delivery—the system of community health centers—undertaken by the Rockford School of Medicine. This program is the first effort of its kind in the United States designed specifically for student-teaching to provide health care in areas where medical services are inadequate. The publication presents the objectives and philosophies and other factors concerning the students, the faculty, the medical care delivered, and finally, the possibilities for future development in community health centers.

183.

Program and Philosophy Statement. Rockford, Ill.: Rockford School of Medicine, Aug. 1, 1973 (mimeo). 17 pp.

Established in 1971, The Rockford School of Medicine represents two basic concepts that are new to medical schools and medical education: (1) the development of schools of medicine as part of the College of Medicine, University of Illinois, but located in communities and utilizing community physicians for the teaching effort; (2) the promotion of a functioning system of medical care delivery encompassing private practice, group practice, model practice units, and community health centers. The paper describes the background of the establishment of this community institution and presents the goals and programs to guide the medical care and service system.

184.

Ramsden, Elsa, and Dervitz, Hyman L. "Clinical Education: Interpersonal Foundations." *Physical Therapy* 52: 1060-1066, Oct. 1972.

This article points out that clinical education has been an integral aspect of physical therapy education for a long time, though little attention has been given to particular teaching-learning transactions. As the student becomes involved in the difficult process of change in both thought and action, the learning climate should be one which provides emotional support as well as intellectual challenge. The clinical educator has the important function of creating a climate conducive to learning. In each clinical education setting, an interpersonal relationship is negotiated by the instructor and the student. The nature of this relationship depends upon the individualities of the student and the therapist as well as the characteristics of the clinical setting within which the learning takes place. The authors agree that since the primary influence the clinical educator has on both other parties and on their relationship is his behavior, he should understand the effect of his behavior upon others. In this way, the authors conclude, the needs of both the student and the clinic can best be served.

185.

Reed, D. Cramer. "Integrated Teaching for Medicine and Allied Health." *Journal of Allied Health* 2: 159-162, Fall 1973.

Discusses the obstacles to wide-scale implementation of integrated teaching for the health professions, such as professional "territorial protectiveness," human foibles which discourage participatory attitudes, ferment within the disciplines, increased number of malpractice suits against the physician and hospital which make them reluctant to embrace new untried team education concepts, the additional cost of funding collaborative education programs, the cost of affiliated clinical facilities. Since there is little doubt that a national pre-paid health insurance plan will be implemented in the foreseeable future, the author feels it imperative that the discipline find ways now to educate and more efficiently train professionals responsible for health care. A health care team will never be effective if the members have not learned how to work together as students.

186.

Riddick, Frank A. Jr., and Others. "Use of Allied Health Professionals in Internists' Offices: Current Practices and Physicians' Attitudes." *Archives of Internal Medicine* 127: 924-931, May 1971.

Presented here are the results of a survey of 3425 members of the American Society of Internal Medicine in 1800 offices to discover the number and type of allied health workers currently employed by internists in their office practices, to find which tasks the internists' allied health workers now perform, and to determine attitudes of internists about which aspects of their practices could be delegated. The answers to the questionnaire reveal that an average of 2.22 allied health workers are employed per internist and, the smaller the office, the less likely are the personnel to have had formal training in health care. An inverse correlation is apparent between physician-population ratio and both the number of health workers employed and the degree to which the physician delegates aspects of his practice to assistants in the various regions of the United States. A detailed tabulation shows a gap between what the internist believes he could and should entrust to allied health personnel and what he actually does.

187.

Roberts, Diane, and Plunkett, Robert A. "Selected Keys to Open the Door to Minority Student Participation in Health Careers." *Journal of Allied Health* 3: 40-49, Winter 1974.

The authors identify and note the basic elements of various programs conducted by 14 different institutions in the United States that have been designed to remedy or remove barriers prohibiting or decreasing in number the opportunities of minority groups to enter into health occupational training programs. Also, they describe several federal programs which have offered sources of funding to institutions engaging in activities to increase minority student participation. In addition, a career education model is outlined. This model was proposed by the Advisory Council for Technical-Vocational Education in Texas.

188.

Roemer, Ruth. "Trends in Licensure, Certification, and Accreditation: Implications for Health-Manpower Education in the Future." *Journal of Allied Health* 3: 26-33, Winter 1974.

In this article, the author expresses concern with the effect of regulatory mechanisms on education of health manpower. She discusses not only regulations for licensure, certification, and accreditation, but also regulation of work settings and requirements of pay programs. The impact of trends such as authorizing of more flexible use of health personnel, credentialling new types of personnel, and recognizing equivalent qualifications, on the preparation of candidates for allied health occupations is also examined. The changes and advances that may take place are up to the educators, institutions, practitioners, and consumers.

189.

Rosarii, Mary. "The Allied Health Student as a Hospital Employee." JAMA 213: 2054-2057, 21 Sept. 1970.

In her development of this topic, the author discusses the historically rooted role in the health manpower crisis; the exploitation, pro and con, of student manpower; and the internship phase for allied health workers. She recommends dual appointments for faculty—one on the college faculty and one in the primary affiliating hospital. Each health profession should have a hand extended for the student who wishes to grasp it; that hand must be from a health professional involved in education or practice or both.

190.

Rowe, Harold R. *A Health Career Development Program for the Rural High*

School. Columbus: Ohio State University, Center for Vocational and Technical Education, June 1970. 120 pp.

This reports a project which was a cooperative venture between the Center for Vocational and Technical Education at Ohio State University and the Rocky Mountain Educational Laboratory in developing a curriculum data base useful in the planning of basic vocational programs in the health occupations. Specifically, it provides the essential data for the construction of a curriculum appropriate for the eleventh or twelfth grades in a rural elementary school. Especially helpful to curriculum developers, program planners, and supervisors in health occupations.

191.

Sata, Lindbergh S. "A Mental Health Center's Partnerships with the Community." *Hospital Community Psychiatry* 23: 242-245, Aug. 1972.

A report of the work of the Harborview Medical Center, an affiliate of the University of Washington School of Medicine, in its health services to the catchment area of about 110,000 people in south Seattle. Described are certain community partnerships the Center developed, which created a pool of human resources to draw on to carry out the many functions subsumed under the umbrella of comprehensive mental health. Examples: (1) the five-year child-advocacy grant project—this created a partnership with the Holly Park community (low income residents), its schools, and the agencies serving it; (2) the telephone fund-raising campaign and public lecture—this raised $10,000 for a food bank program; (3) the Payment for Services in Kind (PSK) program in which patients gave services to compensate for the portion of the standard fee they could not pay—this resulted in new contacts with Center staff and community members. The article shows the possible results when a mental health center's staff is committed to work toward the development of meaningful services in partnership with those who are served.

192.

Schechter, Daniel S., and O'Farrell, Thomas M. *Universities, Colleges, and Hospitals: Partners in Continuing Education*. Battle Creek, Mich.: W. K. Kellogg Foundation, n.d. 48 pp.

Samplings of activities conducted by the seven regional centers for hospital continuing education established in 1964-66 by the Hospital Research and Educational Trust, an affiliate of the American Hospital Association. The programs illustrate innovative planning of formats for course offerings, of adjustments to the needs of student groups, and of experiences in cooperating with other organizations and agencies. Centers for hospital continuing education are located at the universities of Alabama, California, Michigan, Minnesota and at Columbia University, Duke University, and St. Louis University. The brochure also outlines factors to be considered in organizing a continuing education center, such as objectives, staff, certificates, advisory committees, relations with hospital associations, financing, and evaluation.

193.

Schreckenberger, Paul C. "Playing for the Health Team." JAMA 213: 279-281, 13 July 1970.

Health care delivery is a demand that the professionals, the suppliers, can never seem to meet. This is why, the author says, that people in the medical profession must turn to a more efficient approach—use of the health team. His question is this: How are we going to overcome the problem of extending the quantity while maintaining or improving the quality of health service unless the allied health professions are utilized? He concludes that the medical profession needs changes in the curriculums that will allow all to learn together the health team concept. Lip service has been given the word team; the action of the team concept is lacking.

194.

Selected Health Manpower Educational Offerings in Ohio. Columbus: Health Careers of Ohio, Dec. 1973. 80 pp.

The data within shows the offerings in selected health manpower educational programs in Ohio between October 1970 and November 1973. Statistics included for medical technology, microbiology, radiologic technology, dietetics, home economics, environmental health, medical illustration, medical record administration, health education, dentistry, dental hygiene, dental assisting, dental laboratory technology, medicine, optometry, pharmacy, podiatry, veterinary medicine, animal care technology, occupational therapy, physical therapy, speech pathology and audiology, psychology, social work, surgical assisting, respiratory therapy, circulation technology, cytotechnology, medical laboratory technology, nuclear medicine technology, dietary technology, food service technology, biomedical equipment technology, biomedical instrumentation, physician's assistant/associate, optometric technology, orthoptic technology, pharmaceutical technology, nurse anesthesiology, community service aide, mental health technology, child care technology, EEG technology, environmental management, opthalmologic technology. Degrees possible are shown: assistant, associate, baccalaureate, masters.

195.

Selected Issues Relating to Available Information on Health Education Needs. Report No. 38. Denver, Colo.: Education Commission of the States, May 1973. 22 pp.

The absence of agreement on approaches to measuring the need for medical and health care services contributes to the controversy about the availability and distribution of health care. This paper accounts for the general apparatus designed to train and educate health care services personnel, spells out the components of the health education programs in the postsecondary education establishment, and analyzes the justification for the programs. In sum, it attempts to assess and evaluate the adequacy of available information on education program needs. Selected references.

196.

Selected State and Regional Reports on Health Manpower Supply and Requirements: An Annotated Bibliography. Washington: Government Printing Office (revised), Sept. 1973. 15 pp.

The listing covers 41 statistical and methodological studies on health manpower supply and requirements for regions, states, and local areas—all published since 1970. Especially helpful to health analysts and planners in determining the types of information available and the approaches utilized by areas of the United States.

197.

Shaw, Jane. "Community Resources Aid Inservice Education Budget and Help Provide Diversity of Courses." *Modern Hospital* 119: 97-99, Nov. 1972.

This article explains the way the University of Chicago Hospitals and Clinics makes available numerous inservice courses by relating to other institutions and resources in the community. The courses are carefully selected and structured so that nonprofessional employees can move smoothly up one of several career ladders. Since the fall of 1969, nearly 700 of the hospital's 2300 employees have participated in some phase of inservice training. Through this program the Chicago Hospitals and Clinics has been able to adapt to its community's changing demands for health care education.

198.

Silver, Henry K. "The Syniatrist. A Suggested Nomenclature and Classification for Allied Health Professionals." JAMA 217: 1368-1370, 6 Sept. 1971.

To clarify terminology describing allied health professionals, the author recommends that a new term "syniatrist" (defined as an individual practicing in association, union, or together with a physician) be adopted as the generic name for health professionals who carry out functions and activities traditionally performed by physicians. He says that the name syniatrist would apply only to health workers who have direct contact with patients in providing health care under a physician's supervision. He proposes a classification of syniatrists, with two principal subdivisions: (1) area of specialty of practice and (2) relationship of syniatrist to physician—this latter subdivision based on the degree of independence and competence expected from the syniatrist in the application of his professional skills.

199.

Skaggs, Kenneth G. "Health Technology Programs: A Brief Review." *Community and Junior College Journal* 44: 6-8, March 1974.

The author presents some of the major issues developing in the medical and health education fields and poses questions which need answers in those program areas being planned for the education and training of allied health personnel. Because the new careers are in the supportive fields, the training for support personnel, that is, paramedics, occurs in the less than baccalaureate level institution. Junior colleges wishing to train health personnel need to acquaint the public with the importance of occupational education, to coordinate career counseling programs with those in high schools, and plan a flexible and adaptable curriculum so that mobility can be horizontal as well as vertical.

200.

Smith, Vivian S. *Cooperative Statewide Planning for Health Manpower Data in Oklahoma*. Oklahoma City: Oklahoma Regional Medical Program, 1973. 11 pp.

Explains the need for and the formation of the Interagency Task Force for Health Manpower Data. Discusses problems, potentials, and challenges to health manpower educational planners, particularly in terms of relating production to needs and program categories to job titles. Included in the appendix are notations of agencies in Oklahoma with responsibilities related to planning for health manpower production and of occupational titles on the 1973 Oklahoma Health Manpower Survey List.

201.

Sparer, Gerald, and Johnson, Joyce. "Evaluation of OEO Neighborhood Health Centers." *American Journal of Public Health* 61: 931-942, May 1971.

This report evaluates neighborhood health centers funded and organized under Office of Economic Opportunity. The authors observe that technology for project analysis was nonexistent in 1968, when there were 33 OEO-assisted comprehensive health service projects funded and only 12 of these, operational. OEO then developed an evaluation program which included site appraisal reviews, baseline health surveys, quality reviews, utilization reporting, cost reporting, and, further, having been assigned the task of developing and carrying out comprehensive health services projects, OEO proceeded to develop operational concepts for these projects. The findings of some of the experiences with the neighborhood health center programs are presented from information gathered as a part of the site appraisal program conducted by the Program Planning and Evaluation Division of OEO. These findings show by various indications that the center program has been highly successful.

202.

Stoyanoff, Edward M. "Emergency Medical Technology Response and Action." *Community and Junior College Journal* 44: 29-31, March 1974.

The author describes the organization and functioning of the network of regional trauma centers in the state of Illinois and presents details about the center conducted jointly by St. Anthony Hospital and Rock Valley College in Rockford, Illinois. These two institutions have welded together a teaching roster of professionals from the fields of medicine and education and have also joined forces in the sharing of expenses for equipment and supplies.

Another line of the chain of cooperation that binds together the college-trauma system tandem is the academic credit awarded by the college upon the trainees' satisfactory completion of course requirements. There has been overwhelming affirmative response to EMT training, and students, according to the author, are doing their jobs well. He concludes that EMT students may ultimately be absorbed within the broad and viable parameters of a medically-oriented two-year program leading to an associate's degree.

203.

The Survey of Health Manpower, Resources and Education, Health Manpower and Education. Vol. 2. Rockford, Ill.: Rockford School of Medicine, Office of Community Health Research. 1973. 96 pp.

Conducted for Comprehensive Health Planning of Northwest Illinois, Inc., this data survey of manpower presents an analysis of availability of and distribution of physicians, osteopaths, chiropractors, dentists, optometrists, pharmacists, podiatrists, and nurses in Northwest Illinois. Also contains the health education programs by institution for M.D., R.N., L.P.N., Allied Health (certified laboratory technologists, inhalation theraphy technician, radiologic technologists, medical technologists), and other related areas.

204.

Todd, Malcolm C. "Health Manpower." (Comment) *Inquiry* 10 Supplement 1: 61-65, March 1973.

In considering the subject of physician and allied health manpower, the author, within the broad framework of the American Medical Association's perspective of health manpower, comments on the following: shortages of physicians; difficulties in estimating shortages or requirements within individual medical specialties; financial problems facing medical schools and cost of medical education; need for upgrading of medical competence through continuing education; importance of doctor involvement with allied health professions; provisions for career ladders for mobility of health workers; and recognition of the influence of licensing and certification systems on effective use of health personnel.

205.

Todd, Malcolm C. "Medicine and the Allied Health Professions." *Journal of Allied Health* 3: 73-78, Spring 1974.

The author discusses three major topics: the overall contribution of allied health professions, the professional marriage between physicians and other health professions, and the systematization of health care delivery and regimentation of health care professionals. He is concerned with the evident fragmentation of medicine, both in medicine and in allied professions, and suggests that more stress be placed on the human factors in health care delivery by schools of medicine and allied health. He recommends deemphasis in specialization for physicians and workers in allied health.

206.

Todd, Malcolm C. "National Certification of Physicians' Assistants by Uniform Examinations." JAMA 222: 563-566, Oct. 1972.

In this article, the author presents first the need for certification of physicians' assistants and second the rationale for American Medical Association involvement in the determination of the place this occupation will occupy on the health team. He then suggests a blueprint for a national certification program discussing the following elements: national examinations, involvement of specialty groups, medical society participation, test development, financing, administration of tests, examination prerequisites, promotion of certification program, credentialing, and recertification.

207.

Training the Nation's Health Manpower. Washington: Government Printing Office, Oct. 1972. 34 pp.

Presents past efforts and current programs on the Bureau of Health Manpower Education. Includes a health manpower education legislative chronology, an organizational chart of the Bureau, and a description of its work, in these five divisions: Allied Health Manpower, Physician and Health Professions Education, Nursing, Dental Health, and Manpower Intelligence. Cites the Bureau's available grants, contracts, awards, loans, scholarships, fellowships, traineeships by divisions; also, key personnel.

208.

United Hospital Fund. *Getting It All Together (GIAT). Teaching Human Relationships and Communication Skills in Nursing Homes.* New York: the Fund, Dec. 1972. 98 pp.

This is a pilot effort for teaching human relationship and communication skills in nursing homes and other long-term care facilities. Useful as guidelines for those inservice educators interested in the care of the chronically ill. Presents model lesson plans, which condense and restate the content and methods tried and tested during GIAT demonstrations. Innovative chapter titles: Listen!, See!, Speak!, Touch!, Cherish!, The Sound of Silence, and Getting It All Together. Chapters include notes for the inservice educator and notes for a lesson plan. Appendix includes both source materials and a bibliography.

209.

United Hospital Fund. *How to Plan an Inservice Education Program for Your Nursing Home.* New York: the Fund, Dec. 1971. 26 pp.

A demonstration guide designed to offer the nursing home administrator and his inservice education coordinator information about the process of program planning. Discusses the problems of planning and offers suggestions for both the program committee and an inservice coordinator.

210.

Use of Nonphysicians as Assistants. Columbus: Health Careers of Ohio, 1973. 47 pp.

Detailed tabluations of 3472 responses to a lengthy questionnaire mailed in July 1972, to approximately 13,000 physicians in 88 counties of Ohio. The questionnaire was concerned with the training and use of the physician assistant, the most dominant of the new types of health manpower, and the project was undertaken to meet a need in health manpower planning. No attempt was made to interpret the findings.

211.

Velie, Lester. "The Shocking Trust about Our Children's Health Care." *Reader's Digest*: 170-*passim*, May 1974.

The author's question: Why does the United States put its children last instead of first in the spending of the federal health-care dollar? In answer to his question, he mentions two barriers: price of adequate health care and the acute doctor shortage in inner cities and rural areas. To break the cost and scarcity barriers, the poor and lower middle class have turned to "emergency-room medicine" as a stopgap. He says emphatically that no group—whether the doctors, hospitals, health-insurance industry, or federal government—takes responsibility for the distribution of medical resources or for setting a national health strategy that would include health care for all children. What children need is preventive care—but medical school emphasis is not on prevention—it is on treatment and cure—and the author states that a new approach must be found to a health-care delivery system to deal with today's problems.

212.

Velie, Lester. "Needed: Quality Health Care for All Our Children." *Reader's Digest*: 183-*passim*, June 1974.

The author states that the health of millions of children in the United States will be tragically neglected unless provably successful medical programs are made available to them—now. He cites two models, involving local-federal partnerships in neighborhood health centers, which prove that there are ways to provide the lower-income and rural child with quality health care. One example is the demonstration Maternal and Infant Care Center for expectant mothers and infants, where medical teams are geared to give comprehensive well care. (Regretfully there are but 56 M&I's scattered through 34 states—caring for only ten percent of the country's eligible mothers and infants.) The second example of preventive care is the Child and Youth Health Centers. (These C&Y's total only 59, scattered through 28 states and the District of Columbia and reach fewer then five percent of the eligible children.) Overshadowing all problems connected with providing health care to children is the problem of cost and a new national strategy is needed—perhaps a "junior Medicare" or national health insurance for children?

213.

Veterans Administration, Department of Medicine and Surgery. *Education Programs, A Status Report*. Washington: Government Printing Office, 1973. 163 pp.

Presents the scope and diversity of the present education and training activities of the VA Education Service. The publication covers house staff training, including career residency; allied health training; administrative training and postgraduate and inservice training, including notations of more than 500 intra-VA learning experiences (1972 offerings) listed by hospital, subject area, and course title. A helpful resource is a table, arranged alphabetically by city and state, which shows the more than 125 health services training program accomplishments at each VA hospital and out patient clinic for fiscal year 1971. Other program areas presented in the document include exchange of medical information, medical illustrations, and education space.

214.

Walker, W. J. Jr., "Pilo Summer Program in Medical and Life Science for Black Students." *Journal of Medical Education* 46: 537-539, June 1971.

Description of the pilot program in the medical and life sciences instituted by the Medical College of Georgia in 1970 in an effort to encourage"disadvantaged" students to enter training to become members of the health care team. Seven seniors and two freshman medical students—one from each of the nine predominently black institutions in the state—attended the two-month program. The article gives details concerning the objectives and the conduct of the program, and the conclusions reached about the effectiveness and value of a program of this nature.

215.

Waller, Julian A. "Failure to Solve Rural Emergency Care Problems." JAMA 226: 1441-1446, 17 Dec. 1973.

The author states that rural communities are not merely miniaturized versions of cities and suburbs, and therefore they require different approaches to emergency care than are relevant to urban areas. He describes a situation in rural Vermont, where the emphasis of the state health department, in promoting emergency health services, has been on developing strong districts backed up by appropriate state licensing requirements, and he offers some solutions to several of the existing problems. His thesis is that improvement of basic services and skills is more important than is the development of highly sophisticated training programs and response systems. He points out that emergency room nurses need better training, and there is evident need for standard protocols for emergency response. He proposed frequent critique sessions for both nurses and ambulance personnel to make up for the sparcity of real emergencies they see.

216.

Wanty, Vernon. "College and Hospital Pool Resources." *Community and Junior College Journal* 44: 28, March 1974.

Essex Community College and Franklin Square Hospital share a common campus in Eastern Baltimore County, Maryland. This unique coordination of public and private resources has made possible a variety of allied health programs and services. In each case, the hospital provides clinical experience, equipment, and instructors; the college, faculty and laboratory equipment for academic support of the programs.

217.

Warden, Horace D. "Training of Military Enlisted Paramedical Personnel for Greater Use in Civilian and Military Practice of Surgery." *American Journal of Surgery* 134: 177-180, Aug. 1972.

The need for continually improving training programs and training facilities for surgeons is well recognized. The increasing need, however, for paramedical personnel with capabilities in surgical fields has become apparent, and training programs for them are now of increasing importance. The article discusses the new programs for training enlisted paramedical personnel while in military service. The author states that these programs will permit better and more sophisticated usage of their talents not only during their period of enlistment but also after their return to civilian life. He also mentions numbers of surgical specialty technicians and physician's assistants under current training, curricula, college credit programs, and preparation for state registration and certification.

218.

Watson, Rollin J. "The Meandering Mini-College: Success in Human Terms." *Community and Junior College Journal* 44: 8-9, April 1974.

Discusses how the concept of courses dedicated to community service were organized and carried out by Essex Community College, Baltimore County, Md. Called the meandering mini-college, the instruction ranges from lecture methods, discussion-lecture sessions, to one-to-one dialogue situations. Courses have been conducted in such diverse subjects as bass fishing and behavior modification in drug abuse. The program, though not a great money-maker, has provided members of the community great opportunities to learn and work together and has helped Essex Community College to become more community oriented.

219.

White, Kerr L. "Life and Death and Medicine. *Scientific American* 229: 23-33, Sept. 1973.

The editors of *Scientific American* have planned a series of articles that discuss medicine in broad terms. This is the introductory article which attempts to clarify the issues to be identified and resolved if modern medicine is to make its most beneficial impact on the human condition. In an attempt to answer two questions—On what basis does a society assign priorities for medicine? and What should be the objectives of medical education and medical care?—the author discusses the allocation of health resources and the inadequacy of present-day health information systems—where priority is given to the problems of dying in contrast to those of living. Three categories of health problems are outlined—the third, requiring primary care. In an industrialized society, prompt and equitable access to a full range of health care services is a matter of high priority; treatment must be based in physicians' offices, clinics, ambulatory facilities, or health centers close to where people live and work. The author sees a real need for a redefinition of medicine's mandate.

220.

Wilson, Margaret A. "Equivalency Testing in Development of Health Practitioners." *Journal of Allied Health* 3: 103-109, Spring 1974.

This is a brief report on a survey of equivalency testing efforts in educational institutions preparing health practitioners. The author finds that there was interest in such testing but little evidence that faculty members of the health programs understood the full concept and complexity of it. She warns that prior to mounting an equivalency testing effort, a philosophy regarding such testing should be determined in order to develop policies and consider procedures.

221.

World Health Organization. *Training and Preparation of Teachers for Schools of Medicine and of Allied Health Services.* Technical Report Series No. 521. Geneva, 1973 (Obtainable from National Library of Medicine, Bethesda, Md. 20014). 32 pp.

The collective views of an international group of experts, convened to review the needs, purposes, and modalities of teacher training and existing training programs in countries as well as those carried out by the WHO. The publication presents quantitative as well as qualitative and other considerations relative to the need for teacher training in the health, medical, and related professions and presents the setting and scope of the programs. It also elaborates on training goals, activities, and curiculum content appropriate for four categories of teachers: health professions teachers, educational specialists, educational leaders, and teachers of teachers. A final section deals with the WHO comprehensive coordinated long-term teacher training program developed from the 1969 Consultation on Teacher Training. The study group endorsed continuation of this program to improve the delivery of health care at least until the end of the Second United Nations Development Decade (1980). Within the appendix are recommended teaching methods and instruments and guidelines for teacher-training centers/units.

222.

Zabsky, Harold J. "Basic Science Education for Health-Related Personnel." *Annals of the New York Academy of Science* 166: 1050-1055, 31 Dec. 1969.

As the author says, to some extent nearly all of the numerous allied health professions require the knowledge and application of the basic sciences—physics, chemistry, and biology, as well as mathematics. The question, however, is this: What is to be taught? What science subjects should be required for different skill levels? He delves into the problems and the various curricula by summarizing the basic science and mathematics courses presently required in fifty selected colleges for five of the allied health professions. He indicates that a career ladder can be specified by the basic sciences required in the curricula and observes that the difficulty in developing a basic science sequence increases rapidly as an institution offers a greater variety of allied health programs. His conclusion is that unless there are developed new innovations in the teaching of basic science to health-related students, the graduates will not be able to utilize fully the rapidly expanding body of basic science information in the delivery of the best health care possible.

223.

Zentmyer, Robert Kenneth. "Training of Allied Health Personnel: A Practical Approach." *Clinical Obstetric Gynecology* 15: 333;342, June 1972.

This article acquaints those interested in civilian allied medical training programs with the performance-oriented training utilized by the military. The author explains that the military develops performance skills based on behavioral objectives, and this practical approach to training allied health personnel could also provide the basis for dealing with the three related areas of concern in allied health training: core corriculum, equivalency and proficiency evaluation, and coordinated clinical training. The author says that allied health training faces a choice today: to become action-oriented and develop practical programs for preparing health care technicians or to continue to "Wait and see." Failing to take action may possibly result in even more government involvement in health care, a situation which all citizens, including military health personnel, would not especially welcome.

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AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES

Projects Related to

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DATE	TITLE	FUNDING
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1966-1967	*A Guide for Health Technology Program Planning* (with National Health Council)	U. S. Office of Education
1969-1971	*Allied Health Programs in Junior Colleges / 1970* (with Division of Allied Health Manpower, National Institutes of Health)	National Institutes of Health
1973	*Interface* (allied health consortia)	The Commonwealth Fund
1973-1974	*Study of Allied Health Education* (Mary E. Hawthorne and J. Warren Perry, authors)	The Robert Wood Johnson Foundation

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